



RDMS DocID 00100839

RCRA RECORDS CENTER  
FACILITY MACDERMID  
ID. NO. CTD001164599  
FILE LOC. R-13  
OTHER ADMS# 100839

## APPENDIX D

CT DEP Bureau of Water Management P-5 Files

P-5 File

STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WATER COMPLIANCE/HAZARDOUS WASTE MANAGEMENT

## INDUSTRIAL SURVEY

EPWC-9 NEW 1/83

COMPANY NAME <i>FiberCite Industries</i>	TOWN <i>Waterbury</i>	DEP/WPC NO.
ADDRESS <i>172 East Aurora St.</i>	VILLAGE	REC. STREAM WATERSHED
MAILING ADDRESS (if different from location)	CHIEF OFFICIAL - TITLE <i>Stewart Hendler</i>	PHONE <i>755-1344</i>
	CONTACT - TITLE <i>Julius Koch - Director Plant Engineering</i> <i>John Zeldy - Director of Operations</i>	PHONE <i>same</i>
	NO. of EMP. <i>25</i>	TOTAL PRODUCTION <i>13</i>
	DAYS WORKED <i>4-6</i>	SHIFTS <i>1, 10 hr.</i>
DATE ESTABLISHED <i>4/88</i>	REPORTED BY: <i>R. Langan</i>	DATE <i>11/19/93</i>

PRODUCTS *Pre - Preg. Fiberglass (Resin impregnated fiberglass) Shipped in rolls.*

PROCESSES - Date Discharge Established (each process)

- A *Mixing*  
B *Impregnation*  
C *Drying & Curing*  
D *Research & Development lab*

TYPE OF WASTE (each process)

- A *Waste solvents from cleanup, (vessels, floor, equipment)*  
B *None*  
C *None except solvents driven off into air collection system to incinerator.*  
D *Waste solvents*

WATER USAGE	Gals.-per-day	HOW COMPUTED	DISCHARGED TO
Sanitary Sewage	<i>375</i>	<i>25 employees X 15 gpd</i>	<i>Sanitary sewer</i>
Industrial Waste	<i>2880</i>	<i>Non-contact cooling water - From heat roller</i>	<i>Boiler by steam/mixed to roof drain 11/20/94</i>
	<i>1040</i>	<i>Non-contact cooling water from Thermoplastic Tank (pumps)</i>	<i>Storm system via Roof drain</i>
	<i>? minimal</i>	<i>Air system particle &amp; condensate vent pipes (2)</i>	<i>into ground.</i>
Clean Discharge			
Boiler Water	<i>? minimal</i>	<i>Potential Condensate return tank overflow and</i>	<i>ground?</i>
<i>In Product</i>		<i>2 Safety valve pressure release (Steam &amp; water) pipes</i>	<i>ground?</i>
Unaccounted		<i>Actual boiler blowdown is close looped.</i>	
TOTAL	<i>4295</i>		

WATER SOURCE(S) *City Water* Add details on well(s)SANITARY TREATMENT — *None*INDUSTRIAL TREATMENT — *None*SAMPLE(S) COLLECTED *None* LOCATION

SI/COMMENTS *Acetone delivery transfer pipe connection is exposed, pipe should be extended into adjacent waste solvent containment area. Two metal pipe drains in floor of raw mat storage room should be sealed. There are 36 monitoring wells on site which are maintained and sampled by HRP, monitoring wells installed due to former U.S.T.'s.*

STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION

Form P-5

out of Business

PH. 753-1159

Name of company	Town Waterbury	Location on Map	
Mailing Address	Rec. Stream	Watershed	
102 E. Aurora St.	Contact		
	Type of Problem	Serious Routine Minor None	
Date Established 1972	No. of Emp.	25 68 17 55/12/12	
Date of Last Ex. —	Report by E. Pizzuto	Date 3-21-74	
Products	Sponge Carpet Underlay		
Processes	A Cooling water for Mills, Cannons, Rankin, Air Comp.		
	B Cooling Cans - cool finished product		
	C Pumps on cooling line - flow through		
	D Spray + Atomizers		
Origin of Wastes			
Wastes Contain	A		
	B		
	C Heat Transfer oil		
	D Process oil		
Comments Not Covered by Above Data	① used oil stored in 55 gal. drums		
	variable amounts - hauled away by tank truck for proper sanitation		
	② residual oil from finished product runs over ground to		
	storm sewer - variable flow.		
Water Used For	San. Wastes	Industrial Wastes	Clean Water
Discharged To	Municipal	Storm Sewer	Storm Sewer
Water Usage	Gals-per-day	How Computed	
Sanitary Sewage	1,575	85 emp. x 15 gpd. + ~ 30 showers	
Industrial Wastes	4,000	Estimate	
Clean Discharge	69,200	Estimate - over	
Boiler Water	2,160	Estimate, formula - 150 hp.	
In Product	—		
Unaccounted	22,055	make-up for A+B. (Total - all others)	
Total Used	119,350	1,192,500 ft <sup>3</sup> /yr. ÷ 10	
SANITARY TREATMENT -	Municipal		
INDUSTRIAL TREATMENT -	NONE		

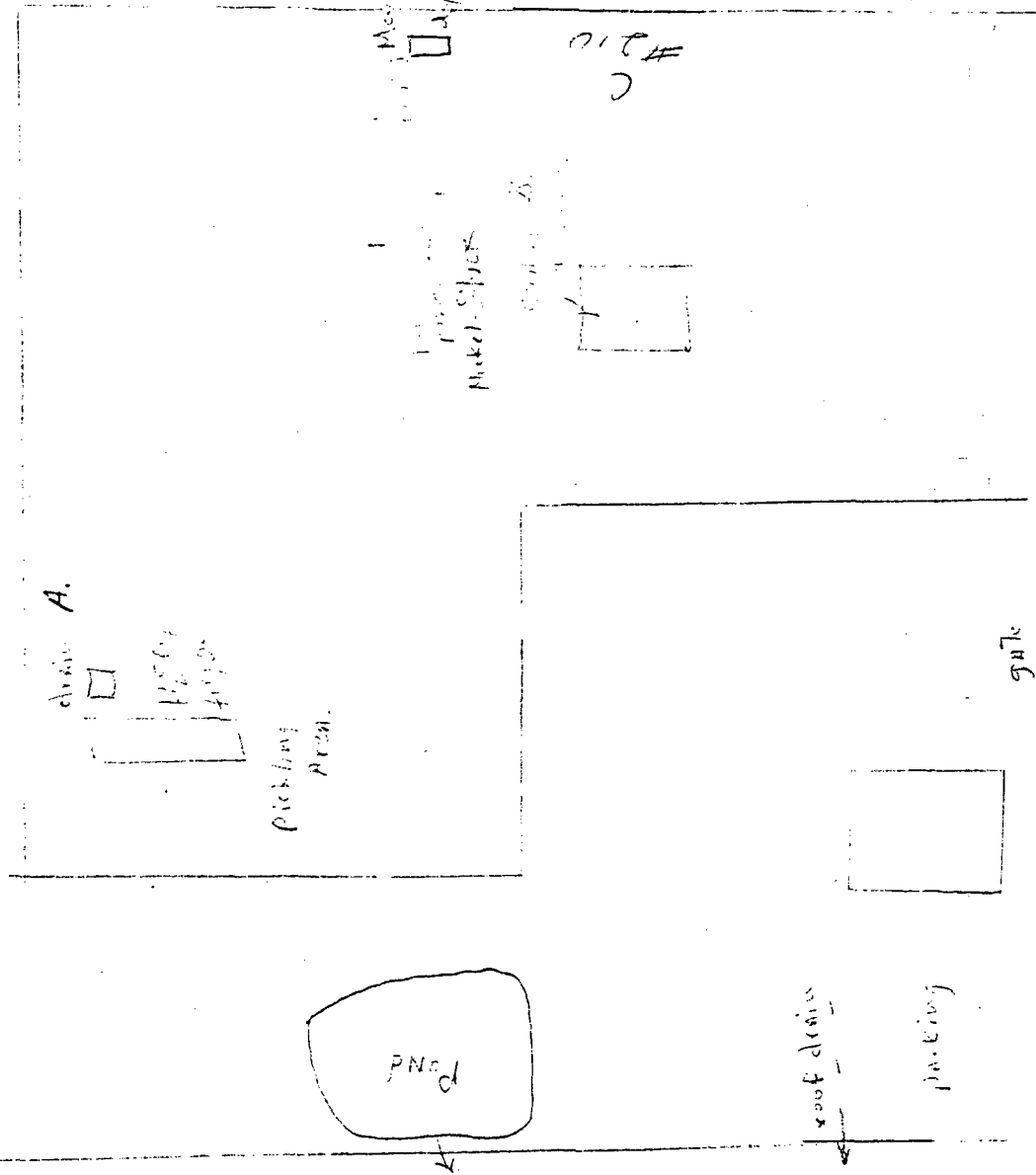
File Data Available:

NOTES: WATER BILL - gtr ending 3-1-74 1,192,500 cu. ft.

NOTE: company has oil problem - oil residue from exhaust fans settles on roof during rain

225

A, B, & dye tested 2-25-74 -  
all y. To roof drain out.



1907 7-30K

NOTED by J. H. H. 1900. Feb. 10, 1900.

$$\begin{array}{r} 120 \\ 15 \\ \hline 600 \\ 1200 \\ 1800 \\ 2400 \\ 3000 \end{array}$$



STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION

Form P-5

out of Business

Ph. 753-1150

Name of company	Town	Location on Map
	Waterbury	
Mailing Address	Village	
102 E. Aurora St.	Rec. Stream	Watershed
	Brook	
	Contact	
	Type of Problem	Serious Routine Minor None
Date Established	No. of Emp.	
1972	25	68
Date of Last Ex.	Report by	Date
	E. Pizzuto	3-21-74
Products	Sponge Carpet Underlay	
Processes	A Cooling water for Mills Chamber Rankin Air Cond.	
	B Cooling Cans - cool finished product	
	C Pumps on cooling line - Flow Through	
	D Spray + Atomizers	
Origin of Wastes		
Wastes Contain	A	
	B	
	C Heat Transfer oil	
	D Process oil	
Comments Not Covered by Above Data	© used oil stored in 55 gal drums	
	variable amounts - taken away by Tank for proper Sanitation	
	① residual oil from finished product runs over ground to	
	Storm Sewer - variable flow	
Water Used For	San. Wastes	Industrial Wastes
Discharged To	Municipal	Storm Sewer
Water Usage	Gals-per-day	How Computed
Sanitary Sewage	1,575	85 emp. x 15 gpd. + 2 30 showers
Industrial Wastes	4,000	Estimate
Clean Discharge	69,200	Estimate - over
Boiler Water	2,160	Estimate, formula - 150 hp.
In Product		
Unaccounted	22,055	make-up for A+B. (Total - all others)
Total Used	119,250	1,192,500 $\text{ft}^3/\text{gtr} \div 10$
SANITARY TREATMENT -	Municipal	
INDUSTRIAL TREATMENT -	NONE	

File Data Available:

NOTES: WATER BILL - gtr ending 3-1-74 1,192,500 cu. FT.

NOTE: company has oil problem - oil residue from exhaust fans settles on roof during winter

STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WATER COMPLIANCE/HAZARDOUS WASTE MANAGEMENT

INDUSTRIAL SURVEY

EPWC-9 NEW 1/83

COMPANY NAME <b>U.S. Prolam Inc</b>	TOWN <b>Waterbury</b>	DEP/WPC NO. <b>151-222</b>
ADDRESS <b>172 East Aurora St.</b>	VILLAGE	REC. STREAM WATERSHED
MAILING ADDRESS (if different from location) <b>Waterbury Ct.</b>	CHIEF OFFICIAL - TITLE <b>Andrew Esposito Chief Exec Officer</b>	PHONE <b>755-1344</b>
	CONTACT - TITLE <b>William Simmenis V.P.</b>	PHONE <b>755-1344</b>
	NO. of EMP. <b>104</b>	PRODUCTION <b>5</b>
	TOTAL <b>104</b>	DAYS WORKED <b>5</b>
		SHIFTS <b>8 to 34 hrs</b>
DATE ESTABLISHED <b>1473</b> <b>Full prod → 1955</b>	REPORTED BY: <b>Terry Beaulieu</b>	DATE <b>10-7-84</b>

PRODUCTS **Electrical Circuit Board Laminates**

PROCESSES - Date Discharge Established (each process)

- |   |   |
|---|---|
| A <b>Mixing (Resin) Vats</b>                          | E. <b>Trimming</b>                              |
| B <b>Treating (Impregnating machines)</b>             | F. <b>Inspect + test circuit board for G.C.</b> |
| C <b>Cutting</b>                                      |   |
| D <b>Laminating Presses</b> (including 1450 Oct 1955) | G. <b>Plate Buffer (machine)</b>                |

TYPE OF WASTE (each process)

- |  |  |
|--|--|
| A <b>Solvent (Acetone)</b>                         | E. <b>Copper scrap (resid)</b>   |
| B <b>Glass fabric to dumpster/NK cooling water</b> | F. <b>Rinse water with spent etching (Ferric Chloride)</b>   |
| C <b>Scrap</b>                                     |  |
| D <b>Non-contact cooling water</b>                 | G. <b>Contact water dish to a 12' x 17' x 10' holding pit in Bldg. Pumped out. All draining sludge &amp; water enslyr by EUB - WTB</b> |

WATER USAGE	Gals.-per-day	HOW COMPUTED	DISCHARGED TO
Sanitary Sewage	1560	104 Emp x 15 gpd = 1560	City Sewer
Industrial Waste			
Clean Disch		air conditioning to cooling tower / No Disch	
Clean Disch		Laminating press (Noncontact) Solidified in floor drain	C.B. → River
Clean Discharge		Cooling cells water from impregnating machine	C.B. → River
Boiler Water	GENERATES 150 lbs steam pressure	(SEE NOTES) HEATS Lam. nate presses yearly Condensate water. HEATS pit in winter.	Catch Basin → Riv
In Product			
Unaccounted			
TOTAL	69,460		

WATER SOURCE(S) **WTBY Water Co / 6-30-84 9-30-84 add details on wells 100 m<sup>3</sup> / day 69460 gpd = 69,460**

SANITARY TREATMENT - **City Sewer**

INDUSTRIAL TREATMENT - **NONE**

SAMPLE(S) COLLECTED **5 at C. Basin** LOCATION **Dye tested sump in Boiler Feed Pump room / Surfed in C. Basin**

ES/COMMENTS **Had trt system for rinsewater (containing copper) when they operated in Stamford**  
**Permit Application to U.S. Prolam in order to bring them into compliance.**  
**\* Condensate H<sub>2</sub>O from boiler VENT builds pressure + then flows thru stack on roof of Bldg, "poking" hot water to the ground which makes its way to a nearby Catch basin**

## WASTE PROFILE

## TYPE OF WASTE

Amount/Frequency  
gals, lbs.,/wk, mo., yr.On-Site Storage  
Less than 90 days (1)  
More than 90 days (2)  
drums, tanks etc.

Transporter

OFF-SITE  
Hazardous Waste Facility  
Licensed ?

Metal Containing 15 gals/month (1) CWR Pending  
Acid Waste

Metal Containing 5 gals/month (1)  
Organic Waste

(Periodically a lot batch: 360 gals, eq.) (1)  
20 gals - Corrosive Solids - 1985 -

\* List of chemicals used by her enclosed.

Has this firm notified EPA (under RCRA) ? NO

YES

ID Number CTP 000006069

IF YES as a-Generator:

Transporter:

\*TSDF

## INVENTORY INFORMATION

1) Has this Firm notified EPA under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 PL 96-510 (commonly known as Superfund)? NO YES

Attach copy of Notification, if available

2)

WASTE PROFILE prior to Nov. 11, 1980 (off-site disposal)

TYPE OF WASTE

Amount/Frequency

How Long (dates)

Transporter

Off-Site Location

3) Is there any evidence of On-Site disposal ? NO

YES

Poor handling/storage NO

YES

IF YES - Include approx. location on diagram and indicate type of waste, amount or frequency & time on-site disposal was used. (Specify any historical on-site disposal):

DIAGRAMS/SCHEMATICS:

SAMPLES COLLECTED SCHEDULE TO SAMPLE

\*

Cleaned  
out x1  
at days end.

① Size tanks & Number: Ten Brits Area (Cleaners) = 4  
(550 gal tanks)  
② Cleaner tanks - Liquid-brits - 10 (550 gal tanks)  
- Liquid-Cleaner - 1 (550 gal tank)

Discharge goes to the  
sanitary sewer (pipes).

\* See breakdown of "Areas of Water Discharge" enclosed.

SUPERFUND - Provides for liability, compensation, clean-up and emergency response

RCRA - Resources Conservation and Recovery Act of 1976 (Hazardous Waste Disposal Control)

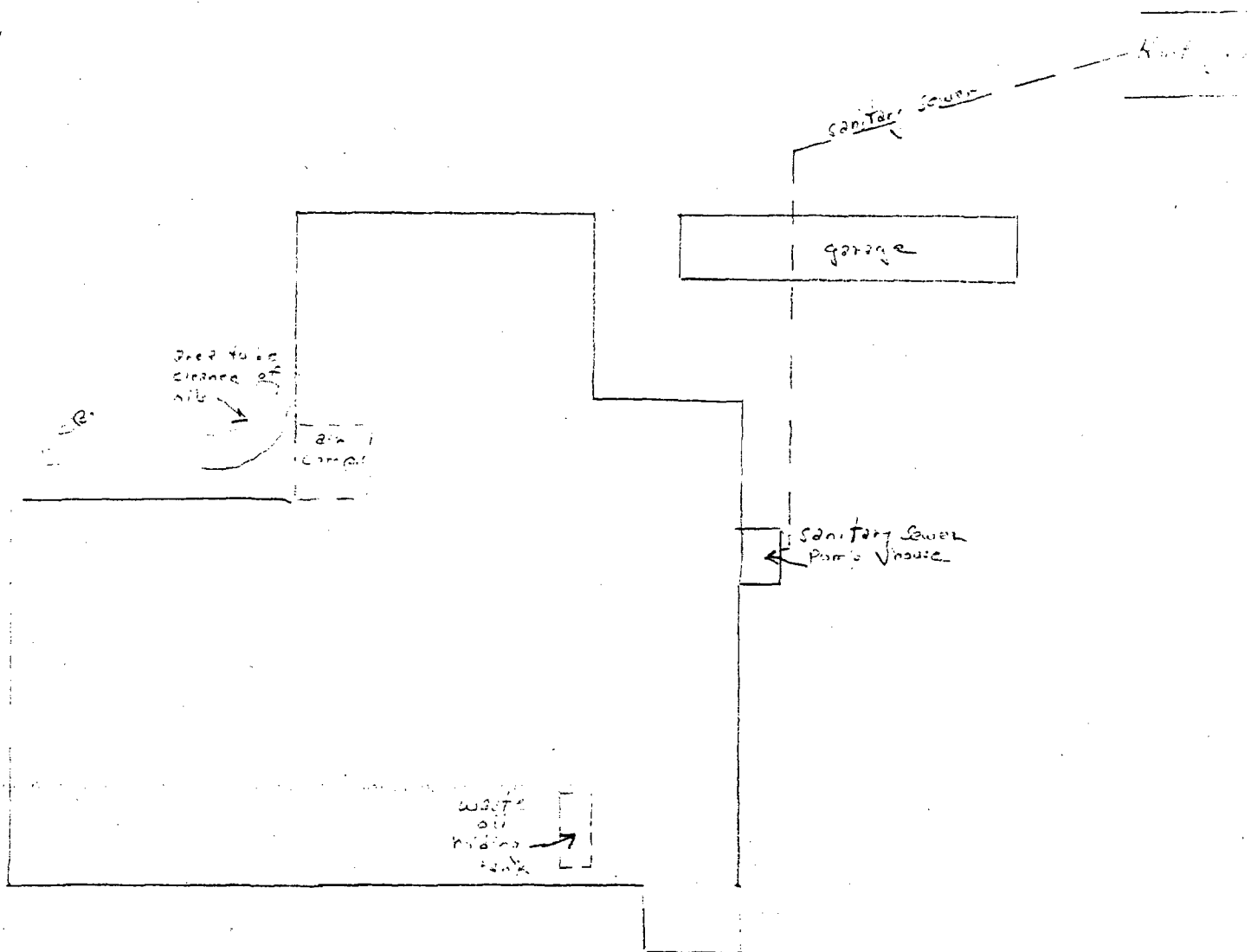
\*TSDF - (Treatment, Storage/Disposal Facility) storage over 90 days/on-site treatment and/or disposal

STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION

Form P-5

Name of company <u>Bristol</u>	Town <u>Waterbury</u>	Location on Map <u>103</u>	
<u>Edward Fackel Co</u>	Village		
Mailing Address	Rec. Stream	Watershed <u>Wetzel</u>	
P.O. Box <u>2100</u> ( <u>170 E. Aurora St.</u> )	Contact <u>Adrian Vecchi Jr. - Plant Manager</u>		
<u>Waterbury</u> <u>06700</u>	Type of Problem	Serious <input type="checkbox"/> Routine <input type="checkbox"/> Minor <input type="checkbox"/> None <input type="checkbox"/>	
Date Established <u>June 1967</u>	No. of Emp.	<u>90</u> <u>15</u> <u>75</u> <u>2</u> <u>30</u>	
Date of Last Ex. <u>---</u>	Report by <u>R. J. Sponck</u>	Date <u>11-29-70</u>	
Products <u>metal stamping</u>			
Processes			
A <u>stamping</u>			
B <u>gaskets (neoprene)</u>			
C <u>drying</u>			
D <u>---</u>			
Origin of Wastes			
Wastes Contain			
A <u>metal chips, cuttings, coolant, water, oil, etc.</u>			
B			
C			
D			
Comments Not Covered by Above Data <u>*water soluble oil in coolant - 1000 lbs</u> <u>sent to waste disposal company - 1000 lbs - 67-1-10</u> <u>and collected by Toxic Sanitation Service 16 Tenth Ave. Cambridge</u>			
Water Used For	San. Wastes	Industrial Wastes	Clean Water
Discharged To	<u>sewer</u>	<u>*</u>	
Water Usage	Gals-per-day	How Computed	
Sanitary Sewage	<u>1800</u>	<u>90 emp. x 15 gpd = 1350 gpd</u>	
Industrial Wastes		<u>12 machines oil soluble oil cut. waste 200 gal/year</u> <u>10 machines oil soluble oil cut. waste 80 gal/year</u>	
Clean Discharge		<u>20 gpd for industrial cooling water</u>	
Boiler Water			
In Product			
Unaccounted			
Total Used	<u>1,300</u>	<u>water for heating for use by Electric Co. 18,000 gpd/yr</u>	
SANITARY TREATMENT - <u>municipal water treatment plant</u>			
INDUSTRIAL TREATMENT - <u>none</u>			
File Data Available:			
TES: <u>water supply - City of Waterbury - 11-1-70 - 18600 gpd/yr</u>			
<u>Tenant - Gaynor Electric Co. Inc.</u>			

Note - Diagram not to scale



STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION

Form P-5

Name of company <i>Gaynor Electric Co. Inc.</i>	Town <i>Waterbury</i>	Location on Map <i>102</i>			
Mailing Address	Village	Rec. Stream			
<i>50. Box 2125 (172 E. Aurora St.)</i>	Contact <i>Mr. Gaynor - President</i>	Watershed <i>Yankee</i>			
<i>Waterbury 06720</i>	Type of Problem	Serious	Routine	Minor	None
Date Established <i>June 1, 1972</i>	No. of Emp.	<i>55</i>	<i>6</i>	<i>49</i>	<i>1</i>
Date of Last Ex. <i>—</i>	Report by <i>R.W. Serbok</i>	Date <i>11-29-72</i>			
Products <i>Electric switches for appliance industry</i>					
Processes A <i>bench type work - tapping, drilling &amp; assembly</i>					
B					
C					
D					
Origin of Wastes					
Wastes Contain A					
B					
C					
D					
Comments Not Covered by Above Data					
Water Used For	San. Wastes	Industrial Wastes	Clean Water		
Discharged To	<i>Sewer</i>				
Water Usage	Gals-per-day	How Computed			
Sanitary Sewage	<i>510</i>	<i>water consumption Bristol Flower Gasket Co. 1850 g/d. minus sanitary use 1,250 = 510 - 1/2</i>			
Industrial Wastes		<i>V</i>			
Clean Discharge					
Boiler Water					
In Product					
Unaccounted					
Total Used	<i>510</i>	<i>Total Known:</i>			
SANITARY TREATMENT - <i>minimal surface water - 100 gals. of</i>					
INDUSTRIAL TREATMENT - <i>None</i>					
File Data Available:					
NOTES: <i>Sanitary Sewage - Bristol Flower Gasket Co. (10-5)</i>					

## STATE OF CONNECTICUT - Form 1064

Name of Company <i>SPERRY RAND CORP.</i>		Town <i>WATERBURY</i> Village		Location on Map <i>22</i>	
Receiving Stream <i>STEEL BROOK</i>		Watershed <i>NAUGSETT RIVER</i>			
Mailing Address <i>172 EAST AURORA ST.</i>		Contact <i>CHAS. E. JEFF</i>			
Date Est. <i>1945</i>		Type of Problem - Serious, Routine, Minor, None			
Date Last Exp. <i>-</i>		No. of Employees <i>300</i>		<i>75</i>	<i>225</i>
		Report by <i>J. AHERN</i>		Date <i>4/10/62</i>	
Products <i>HARDWARE, CHAS. E. JEFF CO. 172 EAST AURORA ST. WATERBURY, CT.</i>					
Processes <i>A ASSEMBLY</i>					
<i>B</i>					
<i>C</i>					
<i>D</i>					
Origin of Waste <i>NO. 5</i>					
Waste Contains					
<i>A</i>					
<i>B</i>					
<i>C</i>					
<i>D</i>					
Water Used For		Sanitary Wastes		Industrial Wastes	
Discharged To		<i>SEWER</i>		<i>-</i>	
Clean Water		<i>STREAM</i>			
Water Usage		Gals per day		How Computed	
Sanitary Sewage		<i>7500</i>		<i>500 X 15</i>	
Industrial Wastes		<i>-</i>		<i>-</i>	
Clean Discharge		<i>56190</i>		<i>T - (SS + BW) = C.D</i>	
Boiler Water		<i>900</i>		<i>250 H.P. - 16 HRS. - 5% MAKE-UP</i>	
In Product					
Unaccounted					
<i>WATER TOWER</i>		<i>NEGL.</i>		<i>WATER TOWER</i>	
Total Used		<i>65390</i>		<i>653900 CU FT / QUART</i>	
SANITARY TREATMENT - <i>STORM SEWER -&gt; STEEL BROOK</i>					
INDUSTRIAL TREATMENT - <i>-</i>					
File Data Available					
NOTES:					

City  
6530

STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION

Form P-5

Name of company	Town <u>Waterbury</u>		Location on Map <u>22</u>	
<u>Whisper Electronics Plant</u>	Village			
Mailing Address	Rec. Stream		Watershed	
<u>150 E. Aurora St.</u>	Contact <u>Phil Pulone - P.T. Eng.</u>			
	Type of Problem		Serious	Routine
			Minor	None
Date Established <u>1947</u>	No. of Emp.	<u>350</u>	<u>125</u>	<u>225</u>
Date of Last Ex. <u>—</u>	Report by <u>E. Pizzuto</u>		Date <u>12-20-74</u>	
Products	<u>Electronic computers</u>			
Processes	A	<u>Electronic assembly</u>		
	B	<u>soldering</u>		
	C	<u>painting - Dry filters</u>		
	D	<u>Wegman - Trichloroethylene - Hubbard Hall chem.</u>		
Origin of Wastes	<u>B &amp; D</u>			
Wastes Contain	A			
	B	<u>vegetable oil</u>		
	C			
	D	<u>sludge from still - solvent.</u>		
Comments Not Covered by Above Data	<u>(B &amp; D) - stored in 55 gal drums outside of plant - knotted hoses - Freon - 100 gal oil &amp; compressor, (B) ~ 250-300 gal/yr. (D) ~ 1000 gal/yr.</u>			
Water Used For	San. Wastes	Industrial Wastes	Clean Water	
Discharged To	<u>Municipal</u>	<u>Licensed waste hauler</u>	<u>Storm Sewer</u>	
Water Usage	Gals-per-day	How Computed		
Sanitary Sewage	<u>5,250</u>	<u>350 emp. x 15 gpd. (25 gpd.)</u>		
Industrial Wastes		<u>Licensed waste hauler</u>		
Clean Discharge	<u>1,000</u> <u>3,500</u>	<u>W.C. - 53 pm x 2 hrs</u> <u>Wegman &amp; Still - 500 gal/hr. x 2 hrs</u> <u>Painting Surface R. 1200 x 10 = 1200 sq ft.</u> <u>100 x 100 x 1500</u>		
Boiler Water	<u>2,700</u>			
In Product	<u>—</u>			
Unaccounted	<u>6,740</u>	<u>21,190 - 14,450</u>		
	<u>2,000</u>	<u>Air Cond. - emp. - month of Sept. 150 Ton</u>		
Total Used	<u>21,190</u>	<u>21,190 cu. ft. / gal. ÷ 7.48</u>		
SANITARY TREATMENT -	<u>Municipal</u>			
INDUSTRIAL TREATMENT -				
File Data Available:				
NOTES:	<u>City of Waterbury - 21,190 cu. ft. - 7.48 gal - 1 Dec 74</u>			
	<u>NOTED - no water meter installed in early December 1974</u>			
	<u>consumption may be high</u>			
	<u>Water Bill - Harold Stern - 7/1/74</u>			



STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION

Form P-5

Name of company	Town	Location on Map
Waterbury	Waterbury	71
Mailing Address	Village	
211 E. Main St.	Rec. Stream	Watershed
	Contact	
	Type of Problem	Serious Routine Minor None
Date Established	No. of Emp.	
1952	75	
Date of Last Ex.	Report by	Date
1955	E. J. [unclear]	3-20-56
Products	Industrial wastes is common - PAINT	
Processes	A Liquid waste disposal - Acetone - [unclear]	
	B Laboratory - Mixed of Plating solutions	
	C	
	D	
Origin of Wastes		
Wastes Contain	A [unclear] [unclear] [unclear] [unclear]	
	B [unclear] [unclear] [unclear] [unclear]	
	C	
	D	
Comments Not Covered by Above Data	E [unclear] [unclear] [unclear] [unclear]	

Water Used For	San. Wastes	Industrial Wastes	Clean Water
Discharged To	1,000 gpd	5,000 gpd	5,000 gpd
Water Usage	Gals-per-day	How Computed	
Sanitary Sewage	1,150	26 [unclear] [unclear]	
Industrial Wastes	6,000	e. [unclear]	
Clean Discharge	2,915	e. [unclear] - [unclear]	
Boiler Water	3,024	100 gpd - 50 gpd [unclear]	
In Product	3,000	[unclear]	
Unaccounted			
Total Used	7,179	5,340	5,000 (well)

SANITARY TREATMENT - [unclear]

INDUSTRIAL TREATMENT - [unclear]

File Data Available:

NOTES: Two well water sources - Municipal + Well

Well Water  $\approx$  12,000 gpd.

City of Waterbury, Waterb. [unclear] - water ending 3-21-56 - 621600 ft<sup>3</sup>  
1800 ft<sup>3</sup>

Name of Company LEA MFG. CO		Town WATERBURY Village		Location on Map 71	
		Receiving Stream		Watershed NAUGATUCK RIVER	
Mailing Address 257 EAST AURORA ST		Contact			
Date Est. 1952		Type of Problem - Serious, <u>Routine</u> , Minor, None			
Date Last Exp. 1955		No. of Employees		22	4
Report by J. AHEARN		Date 6/10/62			
Products ABRASIVE COMPOUNDS					
Processes A					
B					
C					
D					
Origin of Waste					
C					
Waste Contains					
A					
B					
C					
D					
Water Used For		Sanitary Wastes		Industrial Wastes	
Discharged To		SEWER		STREAM (A)	
Clean Water		STREAM			
Water Usage	Gals per day	How Computed			
Sanitary Sewage	330	22 x 15			
Industrial Wastes	14,912	T - (SS + BW + CDE) = J.W.			
Clean Discharge	41800	10 gpm - 8 hrs			
Boiler Water	416	125 HP 8 HRS 10% make-up			
In Product	-	NEGL.			
Unaccounted					
Total Used	20,458	103900 CU FT + 100,080 CU FT / 90% =			
SANITARY TREATMENT - MUNICIPAL SEWER					
INDUSTRIAL TREATMENT - SUMP PUMP -> STEEL DRUM - K					
File Data Available					
NOTES:					

City  
10390  
well  
10:58

STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WATER COMPLIANCE/HAZARDOUS WASTE MANAGEMENT

P-5 UPDATED 4/14/87  
ORIGINAL - 3/24/73  
INDUSTRIAL SURVEY  
EPWC-9 NEW 1/83

COMPANY NAME <b>1EA MANUFACTURING Co.</b>	TOWN <b>WATERBURY</b>	DEP/WPC NO. <b>151-071</b>
ADDRESS <b>237 EAST AURORA ST.</b>	VILLAGE	REC. STREAM WATERSHED
MAILING ADDRESS (if different from location)	CHIEF OFFICIAL - TITLE <b>WILLIAM MILLMAN - PRESIDENT</b>	PHONE <b>574-6780</b>
	CONTACT - TITLE <b>RICHARD J. HELLER - TECH. DIRECTOR</b>	PHONE <b>753-5116</b>
	NO. of EMP. <b>75</b>	TOTAL <b>25</b>
	PRODUCTION <b>13 SALES</b>	10 MANAGE <b>25 OFFICE</b>
	DAYS WORKED	SHIFTS
DATE ESTABLISHED <b>1964</b>	REPORTED BY: <b>E. SANCER</b>	DATE <b>4/14/87</b>

PRODUCTS **INDUSTRIAL ABRASIVE COMPOUNDS, PAINT STRIPPER.**

PROCESSES - Date Discharge Established (each process)

A **LIQUID BUFFING COMPOUND - RINSING + COOLING**

B **LABORATORY - ANALYSIS OF PLATING SOLUTIONS**

C **CLEANERS - MANUFACTURE W.**

D **CHEMICAL BRIGHTENERS**

TYPE OF WASTE (each process)

A **DYE, SOAP, FATTY ACIDS, TALLOW + WATER**

B **CONTAMINATED PLATING SOLUTIONS - Ni, Cu, Zn, Cr, Se + PAINT SOLVENT**

C **PETROLEUM WASTES**

**9000 300 gals./wk of chemicals are collected in packages for reclamation → UWR**

WATER USAGE	Gals.-per-day	HOW COMPUTED	DISCHARGED TO
Sanitary Sewage	1,125	75 employees x 15 gpd = 1,125 gpd.	San Sewer
Industrial Waste	6,100 (3/20)		
(Waste Water) Clean Discharge	25,000	Water Bill 711 H Cu ft. } 3rd & 4th 740 H Cu ft } qtr 1986.	State River - (Application pend.)
PROCESS RINSE	4,800		
Boiler Water	2,000	are = 72,550 gpd	
In Product	2,000		
Unaccounted	32,156 (3/20) (d.p.s)		
TOTAL	70,061		

WATER SOURCE(S) Add details on well(s) **6,000 Cooling from wells; 10,000 from Municipal (art.)**

SANITARY TREATMENT — **Municipal**

INDUSTRIAL TREATMENT — **Municipal**

AMPLE(S) COLLECTED LOCATION

NOTES/COMMENTS

## Form P-1

Name of company	Town	Location on Map	
Mailing Address	Village		
	Rec. Stream	Watershed	
	Contact		
	Type of Problem	Serious	Routine Minor None
Date Established	No. of Emp.		
Date of Last Ex.	Report by	Date	
Products			
Processes			
Origin of Wastes			
Wastes Contain	A		
	B		
	C		
	D		
Comments Not Covered by Above Data			
Water Used For	San. Wastes	Industrial Wastes	Clean Water
Discharged To			
Water Usage	Gals-per-day	How Computed	
Sanitary Sewage			
Industrial Wastes			
Clean Discharge			
Boiler Water			
In Product			
Unaccounted			
Total Used			
SANITARY TREATMENT -			
INDUSTRIAL TREATMENT -			
File Data Available:			
NOTES:			

STATE OF CONNECTICUT - Form 1064

66

Name of Company WATERBURY		Town WATERBURY Village		Location on Map 27	
ROLLING MILLS INC.		Receiving Stream <sup>STEEL'S</sup> BROOK Watershed <sup>NAUGATUCK</sup> RIVER			
Mailing Address EAST AURORA ST		Contact JEAN KERRWIN - PLANT SUPT.			
Date Est. 1903		Type of Problem - <u>Serious</u> , Routine, Minor, None			
Date Last Exp. -		No. of Employees		100	15
				85	2
		Report by J. A. HERN		Date 6/10/62	
Products CASTING, ROLLING, NICKEL, SILVER, BRASS, PHOSPHOR BRONZE					
Processes A CASTING					
B ROLLING					
C PICKLING					
D ANNEALING					
Origin of Waste					
C					
Waste Contains					
A SULFURIC ACID (E) ZINC					
B NITRIC ACID (F) PHOSPHOR					
C NICKEL					
D COPPER					
Water Used For		Sanitary Wastes		Industrial Wastes	
Discharged To		STREAM (U)		STREAM (U)	
Clean Water		STREAM			
Water Usage	Gals per day	How Computed			
Sanitary Sewage	1500	100 X 15			
Industrial Wastes	10,200	T - (SS + DW + CD) = I.W.			
Clean Discharge	108,000	90% TOTAL (CONTACT)			
Boiler Water	300	150 HP - 10 HRS - 5% MAKE-UP			
In Product					
Unaccounted					
Total Used	120,000	250 GPM - 8 HRS (CONTACT)			
SANITARY TREATMENT - STORM SEWER -> STEEL BROOK					
INDUSTRIAL TREATMENT - STEEL BROOK					
File Data Available					
NOTES: I.W. RUN THROUGH SEDIMENT PITS FIRST.					
Pickle SOL. ARE 10%, (2) 800 GAL TANKS DUMPED 4-5 MO.					

80  
5

BROOK  
120,000

✓

STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Form P-5

Name of company	Town WATERBURY	Location on Map 027
Village		
Mailing Address	Rec. Stream STEEL brook	Watershed MAUMATUCK
Contact Mr. ROSSANO - P.T. Eng.		
Type of Problem	Serious	Routine Minor None
Date Established 1920	No. of Emp. 120	89 21 10/20/10
Date of Last Ex. —	Report by E. Pizzuto	Date 1-21-74

Products	BRASS, Nickel silver + Bronze, flat coiled stock		
Processes	A Rolling	E. Blanking	
	B casting	- cooling tower	G. Parts Cleaner - Brackish Solvent
	C annealing	- atmospheric N.	H. Pickling
	D plating		

Origin of Wastes	A River water, oil		
Wastes Contain	H. - Nitric + Sulfuric Acid.		
	B		
	C		
	D		

Comments Not Covered by Above Data  
 H. - Reused - stored in barrels  
 H. - Strip pickling line - rinse goes to pond, Dip Tanks - rinse goes to river - outfall downstream from pond.

Water Used For	San. Wastes	Industrial Wastes	Clean Water
Discharged To	Municipal	Stream	Stream
Water Usage	Gals-per-day	How Computed	
Sanitary Sewage	1,920	120 emp x 15 gpd. + 12 showers x 15 gpd.	
Industrial Wastes		TAKEN FROM STEEL BROOK - NOT MEASURED.	
Clean Discharge	—		
Boiler Water		3 x 100 h.p. (Approx.)	
In Product	—		
Unaccounted			
Total Used	1,769	17,532 cu. ft. ÷ 10 - Does not include	

SANITARY TREATMENT - Municipal Industrial waste.  
 INDUSTRIAL TREATMENT - NONE

Additional Data Available:  
 NOTES: CITY WATER - 12,532 cu. ft. - Municipal  
 All water taken from Steel Brook

Date: March 16, 2001  
Rev. No. 0

**APPENDIX H**  
**1998 UST FACILITY NOTIFICATION FORM**

# UNDERGROUND STORAGE FACILITY NOTIFICATION

STATE OF CONNECTICUT  
Department of Environmental Protection  
UNDERGROUND STORAGE FACILITIES PROGRAM  
Bureau of Waste Management  
79 ELM STREET, HARTFORD, CT 06106-5127  
TEL (860) 424-3374



PG. 1 of 1

SITE I.D.  
151-2853

1a ☐ FIRST NOTIFICATION  
OR  
1b ☒ SUBSEQUENT NOTIFICATION

PLEASE TYPE OR PRINT. ALL THREE COPIES MUST BE LEGIBLE.  
Refer to INSTRUCTIONS FOR FILING NOTIFICATION before completing form.

1. NAME MacDermid, Inc.	2. LOCATION 526 Huntingdon Ave.	3. CITY OR TOWN Waterbury	4. STATE CT	5. ZIP CODE 06702	6. TELEPHONE (203) 575-5700
7. BUSINESS NAME AND ADDRESS Same as above	8. MAILING ADDRESS Same as above	9. CITY OR TOWN Waterbury	10. STATE CT	11. ZIP CODE 06702	12. TELEPHONE (203) 575-5700
13. FACILITY OWNER Same as above	14. TYPE OF OWNER <input checked="" type="checkbox"/> PRIVATE	15. STATE CT	16. ZIP CODE 06702	17. TELEPHONE (203) 575-5700	18. DATE ENTERED 9/1/98

19. OPERATOR/CONTACT PERSON Gregory J. Strong	20. DATE OF INSTALLATION (Mo./Yr.) 5/75	21. TANK ID A1	22. DATE OF INSTALLATION (Mo./Yr.) 9/88	23. TANK ID B1	24. DATE OF INSTALLATION (Mo./Yr.) 9/88	25. TANK ID C1	26. DATE OF INSTALLATION (Mo./Yr.) 9/88	27. TANK ID A2	28. DATE OF INSTALLATION (Mo./Yr.) 9/88	29. TANK ID B2	30. DATE OF INSTALLATION (Mo./Yr.) 9/88
--	---	-------------------	---	-------------------	---	-------------------	---	-------------------	---	-------------------	---

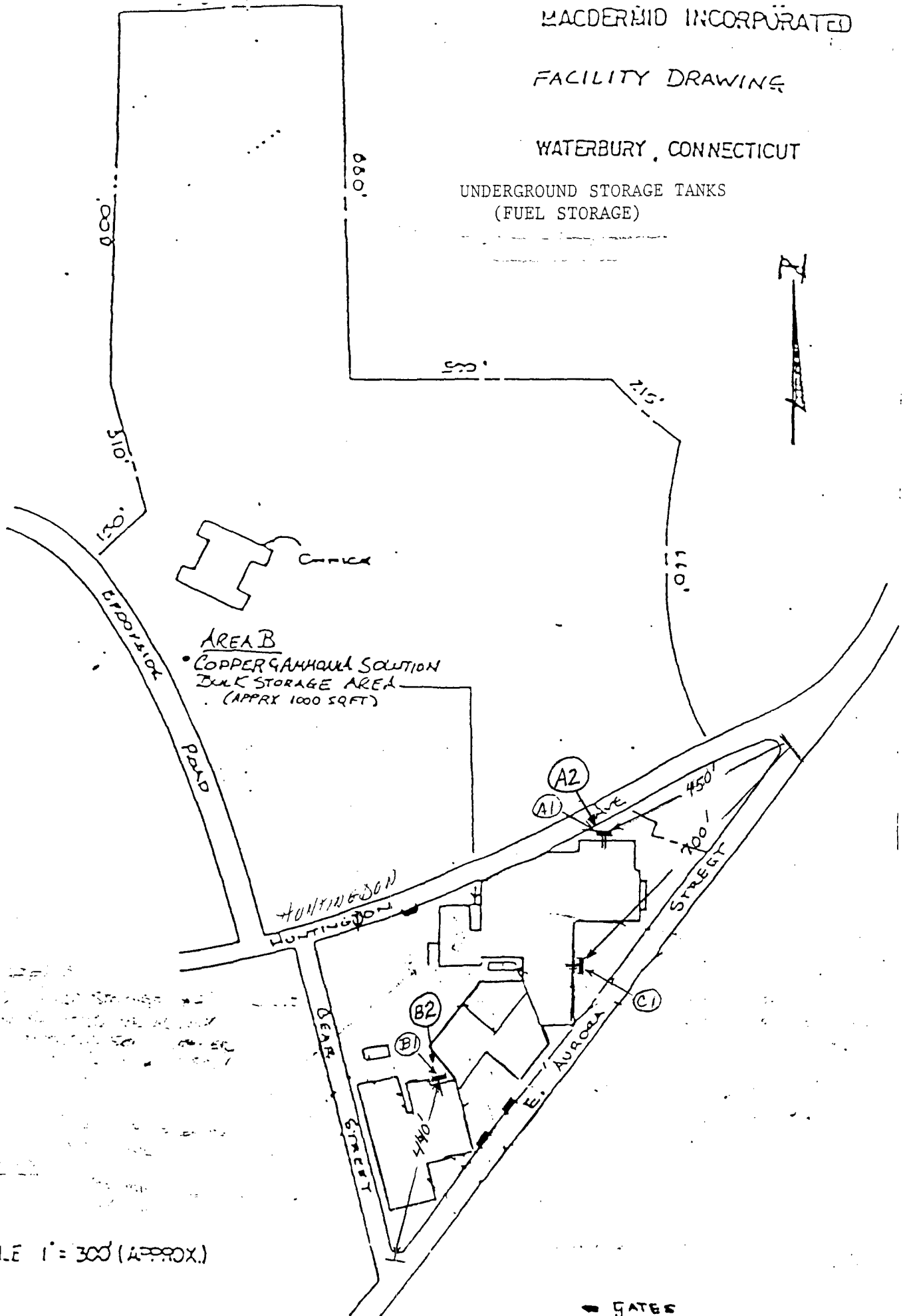
TANK ID	DATE OF INSTALLATION (Mo./Yr.)	TOTAL CAPACITY (Gals.)	EST. QUANTITY LEFT STORED (Gals.)	DATE TANK LAST USED (Mo./Yr.)	REMOVED	ABANDONED IN PLACE	IN USE	13. TYPE OF CONTENTS	14. CHEMICAL NAME OF PRINCIPAL SUBSTANCE (not trade name) (Enter C.A.S. No. if known)	15. MATERIALS	16. PROTECTION	17. INTEGRAL PROTECTION	18. MONITORING SYSTEM	19. FAILURE DETERMINATION
Example	5/75	5000	X				X	LIQUID	Heating fuel #2	STEEL	UNLINED	COATED	DATE OF INSTALLATION OR REPLACEMENT (Mo./Yr.)	19. FAILURE DETERMINATION
Example	7/60	8000		8/78	X			X	LIQUID	LIQUID - Tricloroethane CAS #70016	UNLINED	COATED	DATE OF INSTALLATION OR REPLACEMENT (Mo./Yr.)	19. FAILURE DETERMINATION
A1	1959	10,000		9/88	X		X	X	#2 Fuel Oil	FIBERGLASS REINFORCED PLASTIC	UNLINED	COATED	DATE OF INSTALLATION OR REPLACEMENT (Mo./Yr.)	19. FAILURE DETERMINATION
B1	1963	10,000		9/88	X		X	X	#2 Fuel Oil	FIBERGLASS REINFORCED PLASTIC	UNLINED	COATED	DATE OF INSTALLATION OR REPLACEMENT (Mo./Yr.)	19. FAILURE DETERMINATION
C1	1978	6,000	X	9/88	X		X	X	#2 Fuel Oil	FIBERGLASS REINFORCED PLASTIC	UNLINED	COATED	DATE OF INSTALLATION OR REPLACEMENT (Mo./Yr.)	19. FAILURE DETERMINATION
A2	9/88	10,000	X				X	X	#2 Fuel Oil	STEEL	UNLINED	COATED	DATE OF INSTALLATION OR REPLACEMENT (Mo./Yr.)	19. FAILURE DETERMINATION
B2	9/88	4,000	X				X	X	#2 Fuel Oil	STEEL	UNLINED	COATED	DATE OF INSTALLATION OR REPLACEMENT (Mo./Yr.)	19. FAILURE DETERMINATION

20. HAVE YOU ATTACHED SKETCH OF TANKS AND LOCATION? <input checked="" type="checkbox"/> YES	21. COMMENTS:
22. CERTIFICATION: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. Penalties: Any owner who knowingly falsifies information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which information is not given or for which false information is submitted.	
23. SIGNATURE  Gregory J. Strong	24. DATE SIGNED 9/1/98 25. OFFICIAL TITLE (of owner or authorized representative) Manager of Reg. Affairs

COPY 3: RETURN FOR YOUR RECORDS



2



Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Dept. of Env. Protection  
Bureau of Waste mgmt.  
Underground Storage Tank  
Enforcement Program  
79 Elm Street  
Hartford, CT 06106-5127

4a. Article Number

Z 122 201 352

4b. Service Type

- |  |   |
|--|---|
| <input type="checkbox"/> Registered                                | <input checked="" type="checkbox"/> Certified |
| <input type="checkbox"/> Express Mail                              | <input type="checkbox"/> Insured              |
| <input checked="" type="checkbox"/> Return Receipt for Merchandise | <input type="checkbox"/> COD                  |

7. Date of Delivery

SEP 08 1998

5. Received By: (Print Name)

*[Signature]*

8. Addressee's Address (Only if requested and fee is paid)

6. Signature: (Addressee or Agent)

X

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.

Z 122 201 352

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to

Dept. of Env. Protection  
Bureau of Waste mgmt.  
Underground Storage Tank  
Enforcement Program  
79 Elm St.

Post Office, State & ZIP Code

Hartford CT 06106-5127

Postage

\$ .32

Certified Fee

1.35

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing Whom & Date Delivered

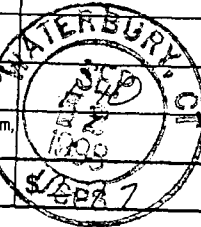
Return Receipt Showing to Whom, Date, & Addressee's Address

TOTAL Postage & Fees

Postmark or Date

PS Form 3800, April 1995

*Greg Shang*



Date: March 16, 2001  
Rev. No. 0

**APPENDIX I**  
**1995 SOIL LABORATORY REPORTS**

1995 SOIL DATA INDEX FOR VOCs		
Groundwater/Boring	Former Boring Designation	Page
B-1	GZ-1	1
MW-103	GZ-2	2
MW-112	GZ-3	3
MW-113	GZ-5	4
MW-111	GZ-6	5
MW-105	GZ-7	6
MW-109	GZ-8	7 & 8
MW-108	GZ-9	9
B-3	GZ-10	10
B-2	GZ-11	11
1995 SOIL DATA INDEX FOR METALS		
B-1	GZ-1	12
MW-103	GZ-2	12
MW-112	GZ-3	12
MW-113	GZ-5	12
MW-111	GZ-6	13
MW-105	GZ-7	14
MW-109	GZ-8	14
MW-108	GZ-9	15
B-3	GZ-10	15
B-2	GZ-11	15

GZA GEOENVIRONMENTAL, INC.  
ENVIRONMENTAL CHEMISTRY LABORATORY  
320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID, INC.  
LOCATION: WATERBURY, CT  
FILE NO.: 41462  
SAMPLE ID: GZ-1, S-5 (20-22')  
MATRIX: SOLID  
LABORATORY #: C1931

PROJECT MGR.: T. CARR  
DATE SAMPLED: 1/12 & 13/95  
DATE EXTRACTED: ---  
DATE TESTED: 1/18/95  
DILUTION FACTOR: 1

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	2-HEXANONE (MBK)	ND	10
CHLOROMETHANE	ND	10	1,3-DICHLOROPROPANE	ND	5
VINYL CHLORIDE	ND	10	TETRACHLOROETHENE	ND	5
BROMOMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
CHLOROETHANE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
TRICHLOROFLUOROMETHANE	ND	20	CHLOROBENZENE	ND	5
ACETONE	ND	125	1,1,1,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHENE	ND	5	ETHYL BENZENE	ND	5
METHYLENE CHLORIDE	ND	5	m&p-XYLENES	ND	5
CARBON DISULFIDE	ND	10	o-XYLENE	ND	5
METHYL tert-BUTYL ETHER (MtBE)	ND	5	STYRENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	BROMOFORM	ND	10
1,1-DICHLOROETHANE	ND	5	ISOPROPYLBENZENE	ND	5
VINYL ACETATE	ND	25	1,1,2,2-TETRACHLOROETHANE	ND	5
2-BUTANONE (MEK)	ND	125	1,2,3-TRICHLOROPROPANE	ND	5
2,2-DICHLOROPROPANE	ND	5	BROMOBENZENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	n-PROPYLBENZENE	ND	5
CHLOROFORM	ND	5	2-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	4-CHLOROTOLUENE	ND	5
1,1-DICHLOROPROPENE	ND	5	tert-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,2-DICHLOROETHANE	ND	5	sec-BUTYLBENZENE	ND	5
BENZENE	ND	5	p-ISOPROPYLTOLUENE	ND	5
TRICHLOROETHENE	ND	5	1,3-DICHLOROBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,4-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	n-BUTYLBENZENE	ND	5
DIBROMOMETHANE	ND	5	1,2-DICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MiBK)	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
cis-1,3-DICHLOROPROPENE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
TOLUENE	ND	5	HEXACHLOROBUTADIENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
1,1,2-TRICHLOROETHANE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
SURROGATE	% RECOV.		SURROGATE	% RECOV.	
1,2-DICHLOROETHANE - D4	104		TOLUENE - D8	102	

ANALYZED BY:

*Xiong*

REVIEWED BY:

*Wahl*

GZA GEOENVIRONMENTAL, INC.  
ENVIRONMENTAL CHEMISTRY LABORATORY  
320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID, INC.  
LOCATION: WATERBURY, CT  
FILE NO.: 41462  
SAMPLE ID: GZ-2, S-3 (10-12')  
MATRIX: SOLID  
LABORATORY #: C1932

PROJECT MGR.: T. CARR  
DATE SAMPLED: 1/12 & 13/95  
DATE EXTRACTED: ---  
DATE TESTED: 1/18/95  
DILUTION FACTOR: 1

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	2-HEXANONE (MBK)	ND	10
CHLOROMETHANE	ND	10	1,3-DICHLOROPROPANE	ND	5
VINYL CHLORIDE	ND	10	TETRACHLOROETHENE	ND	5
BROMOMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
CHLOROETHANE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
TRICHLOROFLUOROMETHANE	ND	20	CHLOROBENZENE	ND	5
ACETONE	ND	125	1,1,1,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHENE	ND	5	ETHYL BENZENE	ND	5
METHYLENE CHLORIDE	ND	5	m&p-XYLENES	ND	5
CARBON DISULFIDE	ND	10	o-XYLENE	ND	5
METHYL tert-BUTYL ETHER (MtBE)	ND	5	STYRENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	BROMOFORM	ND	10
1,1-DICHLOROETHANE	ND	5	ISOPROPYLBENZENE	ND	5
VINYL ACETATE	ND	25	1,1,2,2-TETRACHLOROETHANE	ND	5
2-BUTANONE (MEK)	ND	125	1,2,3-TRICHLOROPROPANE	ND	5
2,2-DICHLOROPROPANE	ND	5	BROMOBENZENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	n-PROPYLBENZENE	ND	5
CHLOROFORM	ND	5	2-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	4-CHLOROTOLUENE	ND	5
1,1-DICHLOROPROPENE	ND	5	tert-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,2-DICHLOROETHANE	ND	5	sec-BUTYLBENZENE	ND	5
BENZENE	ND	5	p-ISOPROPYLTOLUENE	ND	5
TRICHLOROETHENE	ND	5	1,3-DICHLOROBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,4-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	n-BUTYLBENZENE	ND	5
DIBROMOMETHANE	ND	5	1,2-DICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MiBK)	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
cis-1,3-DICHLOROPROPENE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
TOLUENE	ND	5	HEXACHLOROBUTADIENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
1,1,2-TRICHLOROETHANE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
SURROGATE	% RECOV.		SURROGATE	% RECOV.	
1,2-DICHLOROETHANE - D4	98.7		TOLUENE - D8	102	

ANALYZED BY:

*Wong*

REVIEWED BY:

*Kwauk*

GZA GEOENVIRONMENTAL, INC.  
ENVIRONMENTAL CHEMISTRY LABORATORY  
320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID, INC.  
LOCATION: WATERBURY, CT  
FILE NO.: 41462  
SAMPLE ID: GZ-3, S-1 (0.5-2.5')  
MATRIX: SOLID  
LABORATORY #: C1933

PROJECT MGR.: T. CARR  
DATE SAMPLED: 1/12 & 13/95  
DATE EXTRACTED: ---  
DATE TESTED: 1/18/95  
DILUTION FACTOR: 1

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	2-HEXANONE (MBK)	ND	10
CHLOROMETHANE	ND	10	1,3-DICHLOROPROPANE	ND	5
VINYL CHLORIDE	--27--	10	TETRACHLOROETHENE	ND	5
BROMOMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
CHLOROETHANE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
TRICHLOROFLUOROMETHANE	ND	20	CHLOROBENZENE	ND	5
ACETONE	--170--	125	1,1,1,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHENE	ND	5	ETHYL BENZENE	ND	5
METHYLENE CHLORIDE	ND	5	m&p-XYLENES	ND	5
CARBON DISULFIDE	ND	10	o-XYLENE	ND	5
METHYL tert-BUTYL ETHER (MtBE)	ND	5	STYRENE	ND	5
trans-1,2-DICHLOROETHENE	--BMQL--	5	BROMOFORM	ND	10
1,1-DICHLOROETHANE	ND	5	ISOPROPYLBENZENE	ND	5
VINYL ACETATE	ND	25	1,1,2,2-TETRACHLOROETHANE	ND	5
2-BUTANONE (MEK)	ND	125	1,2,3-TRICHLOROPROPANE	ND	5
2,2-DICHLOROPROPANE	ND	5	BROMOBENZENE	ND	5
cis-1,2-DICHLOROETHENE	--87--	5	n-PROPYLBENZENE	ND	5
CHLOROFORM	ND	5	2-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	4-CHLOROTOLUENE	ND	5
1,1-DICHLOROPROPENE	ND	5	tert-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,2-DICHLOROETHANE	ND	5	sec-BUTYLBENZENE	ND	5
BENZENE	ND	5	p-ISOPROPYLTOLUENE	ND	5
TRICHLOROETHENE	ND	5	1,3-DICHLOROBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,4-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	n-BUTYLBENZENE	ND	5
DIBROMOMETHANE	ND	5	1,2-DICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MIBK)	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
cis-1,3-DICHLOROPROPENE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
TOLUENE	ND	5	HEXACHLOROBUTADIENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
1,1,2-TRICHLOROETHANE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
SURROGATE	% RECOV.		SURROGATE	% RECOV.	
1,2-DICHLOROETHANE - D4	105		TOLUENE - D8	96.6	

ANALYZED BY:

*[Signature]*

REVIEWED BY:

*[Signature]*

GZA GEOENVIRONMENTAL, INC.  
 ENVIRONMENTAL CHEMISTRY LABORATORY  
 320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
 MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
 CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID, INC.  
 LOCATION: WATERBURY, CT  
 FILE NO.: 41462  
 SAMPLE ID: GZ-5, S-1 (0-2')  
 MATRIX: SOLID  
 LABORATORY #: C1936

PROJECT MGR.: T. CARR  
 DATE SAMPLED: 1/12 & 13/95  
 DATE EXTRACTED: ---  
 DATE TESTED: 1/18/95  
 DILUTION FACTOR: 1

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	2-HEXANONE (MBK)	ND	10
CHLOROMETHANE	ND	10	1,3-DICHLOROPROPANE	ND	5
VINYL CHLORIDE	ND	10	TETRACHLOROETHENE	ND	5
BROMOMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
CHLOROETHANE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
TRICHLOROFLUOROMETHANE	ND	20	CHLOROBENZENE	ND	5
ACETONE	ND	125	1,1,1,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHENE	ND	5	ETHYL BENZENE	ND	5
METHYLENE CHLORIDE	ND	5	m&p-XYLENES	ND	5
CARBON DISULFIDE	ND	10	o-XYLENE	ND	5
METHYL tert-BUTYL ETHER (MtBE)	ND	5	STYRENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	BROMOFORM	ND	10
1,1-DICHLOROETHANE	ND	5	ISOPROPYLBENZENE	ND	5
VINYL ACETATE	ND	25	1,1,2,2-TETRACHLOROETHANE	ND	5
2-BUTANONE (MEK)	ND	125	1,2,3-TRICHLOROPROPANE	ND	5
2,2-DICHLOROPROPANE	ND	5	BROMOBENZENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	n-PROPYLBENZENE	ND	5
CHLOROFORM	ND	5	2-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	4-CHLOROTOLUENE	ND	5
1,1-DICHLOROPROPENE	ND	5	tert-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,2-DICHLOROETHANE	ND	5	sec-BUTYLBENZENE	ND	5
BENZENE	ND	5	p-ISOPROPYLTOLUENE	ND	5
TRICHLOROETHENE	ND	5	1,3-DICHLOROBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,4-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	n-BUTYLBENZENE	ND	5
DIBROMOMETHANE	ND	5	1,2-DICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MiBK)	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
cis-1,3-DICHLOROPROPENE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
TOLUENE	ND	5	HEXACHLOROBUTADIENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
1,1,2-TRICHLOROETHANE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
SURROGATE	% RECOV.		SURROGATE	% RECOV.	
1,2-DICHLOROETHANE - D4	103		TOLUENE - D8	101	

ANALYZED BY:

*Y. Wong*

REVIEWED BY:

*K. W. Hall*



GZA GEOENVIRONMENTAL, INC.  
 ENVIRONMENTAL CHEMISTRY LABORATORY  
 320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
 MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
 CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID, INC.  
 LOCATION: WATERBURY, CT  
 FILE NO.: 41462  
 SAMPLE ID: GZ-6, S-1 (0.5-2.5')  
 MATRIX: SOLID  
 LABORATORY #: C1937

PROJECT MGR.: T. CARR  
 DATE SAMPLED: 1/12 & 13/95  
 DATE EXTRACTED: ---  
 DATE TESTED: 1/18/95  
 DILUTION FACTOR: 1

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	2-HEXANONE (MBK)	ND	10
CHLOROMETHANE	ND	10	1,3-DICHLOROPROPANE	ND	5
VINYL CHLORIDE	ND	10	TETRACHLOROETHENE	ND	5
BROMOMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
CHLOROETHANE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
TRICHLOROFLUOROMETHANE	ND	20	CHLOROBENZENE	ND	5
ACETONE	ND	125	1,1,1,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHENE	ND	5	ETHYL BENZENE	ND	5
METHYLENE CHLORIDE	ND	5	m&p-XYLENES	ND	5
CARBON DISULFIDE	ND	10	o-XYLENE	ND	5
METHYL tert-BUTYL ETHER (MtBE)	ND	5	STYRENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	BROMOFORM	ND	10
1,1-DICHLOROETHANE	ND	5	ISOPROPYLBENZENE	ND	5
VINYL ACETATE	ND	25	1,1,2,2-TETRACHLOROETHANE	ND	5
2-BUTANONE (MEK)	ND	125	1,2,3-TRICHLOROPROPANE	ND	5
2,2-DICHLOROPROPANE	ND	5	BROMOBENZENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	n-PROPYLBENZENE	ND	5
CHLOROFORM	ND	5	2-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	4-CHLOROTOLUENE	ND	5
1,1-DICHLOROPROPENE	ND	5	tert-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,2-DICHLOROETHANE	ND	5	sec-BUTYLBENZENE	ND	5
BENZENE	ND	5	p-ISOPROPYLTOLUENE	ND	5
TRICHLOROETHENE	ND	5	1,3-DICHLOROBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,4-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	n-BUTYLBENZENE	ND	5
DIBROMOMETHANE	ND	5	1,2-DICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MIBK)	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
cis-1,3-DICHLOROPROPENE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
TOLUENE	ND	5	HEXACHLOROBUTADIENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
1,1,2-TRICHLOROETHANE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
SURROGATE	% RECOV.		SURROGATE	% RECOV.	
1,2-DICHLOROETHANE - D4	95.3		TOLUENE - D8	96.9	

ANALYZED BY:

*[Signature]*

REVIEWED BY:

*[Signature]*

GZA GEOENVIRONMENTAL, INC.  
ENVIRONMENTAL CHEMISTRY LABORATORY  
320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID - WATERBURY, CT	PROJECT MGR.: T. CARR
FILE NO.: 41462	DATE SAMPLED: 2/15/95
SAMPLE ID: GZ-7, 15-17'	DATE TESTED: 2/22/95
MATRIX: SOLID	DILUTION FACTOR: 1
LABORATORY #: C2161	

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	TETRACHLOROETHENE	ND	5
CHLOROMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
VINYL CHLORIDE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
BROMOMETHANE	ND	10	CHLORO BENZENE	ND	5
CHLOROETHANE	ND	10	1,1,1,2-TETRACHLOROETHANE	ND	5
TRICHLOROFLUOROMETHANE	ND	20	ETHYL BENZENE	ND	5
ACETONE	ND	125	m&p-XYLENES	ND	5
1,1-DICHLOROETHENE	ND	5	o-XYLENE	ND	5
METHYLENE CHLORIDE	ND	5	STYRENE	ND	5
CARBON DISULFIDE	ND	10	BROMOFORM	ND	10
METHYL tert-BUTYL ETHER (MtBE)	ND	5	ISOPROPYLBENZENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	1,1,2,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHANE	ND	5	1,2,3-TRICHLOROPROPANE	ND	5
VINYL ACETATE	ND	25	BROMOBENZENE	ND	5
2-BUTANONE (MEK)	ND	125	n-PROPYLBENZENE	ND	5
2,2-DICHLOROPROPANE	ND	5	2-CHLOROTOLUENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
CHLOROFORM	ND	5	4-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	tert-BUTYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,1-DICHLOROPROPENE	ND	5	sec-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	p-ISOPROPYLTOLUENE	ND	5
1,2-DICHLOROETHANE	ND	5	1,3-DICHLOROBENZENE	ND	5
BENZENE	ND	5	1,4-DICHLOROBENZENE	ND	5
TRICHLOROETHENE	ND	5	n-BUTYLBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,2-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
DIBROMOMETHANE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MiBK)	ND	5	HEXACHLOROBUTADIENE	ND	5
cis-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
TOLUENE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	SURROGATE	% REC.	LIMITS
1,1,2-TRICHLOROETHANE	ND	5	1,2-DICHLOROETHANE - D4	98.9	70-121
2-HEXANONE (MBK)	ND	10	TOLUENE - D8	96.9	81-117
1,3-DICHLOROPROPANE	ND	5	4-BROMOFLUOROBENZENE	106	74-121

COMMENTS:

ANALYZED BY: *Alfonso*

REVIEWED BY: *Walt*

GZA GEOENVIRONMENTAL, INC.  
ENVIRONMENTAL CHEMISTRY LABORATORY  
320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID - WATERBURY, CT	PROJECT MGR.: T. CARR
FILE NO.: 41462	DATE SAMPLED: 2/15/95
SAMPLE ID: GZ-8, 0-2'	DATE TESTED: 2/22/95
MATRIX: SOLID	DILUTION FACTOR: 1
LABORATORY #: C2162	

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	TETRACHLOROETHENE	ND	5
CHLOROMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
VINYL CHLORIDE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
BROMOMETHANE	ND	10	CHLOROBENZENE	ND	5
CHLOROETHANE	ND	10	1,1,1,2-TETRACHLOROETHANE	ND	5
TRICHLOROFLUOROMETHANE	ND	20	ETHYL BENZENE	ND	5
ACETONE	ND	125	m&p-XYLENES	ND	5
1,1-DICHLOROETHENE	ND	5	o-XYLENE	ND	5
METHYLENE CHLORIDE	ND	5	STYRENE	ND	5
CARBON DISULFIDE	ND	10	BROMOFORM	ND	10
METHYL tert-BUTYL ETHER (MiBE)	ND	5	ISOPROPYLBENZENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	1,1,2,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHANE	ND	5	1,2,3-TRICHLOROPROPANE	ND	5
VINYL ACETATE	ND	25	BROMOBENZENE	ND	5
2-BUTANONE (MEK)	ND	125	n-PROPYLBENZENE	ND	5
2,2-DICHLOROPROPANE	ND	5	2-CHLOROTOLUENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
CHLOROFORM	ND	5	4-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	tert-BUTYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,1-DICHLOROPROPENE	ND	5	sec-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	p-ISOPROPYLTOLUENE	ND	5
1,2-DICHLOROETHANE	ND	5	1,3-DICHLOROBENZENE	ND	5
BENZENE	ND	5	1,4-DICHLOROBENZENE	ND	5
TRICHLOROETHENE	ND	5	n-BUTYLBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,2-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
DIBROMOMETHANE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MiBK)	ND	5	HEXACHLOROBUTADIENE	ND	5
cis-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
TOLUENE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	SURROGATE	% REC.	LIMITS
1,1,2-TRICHLOROETHANE	ND	5	1,2-DICHLOROETHANE - D4	98.1	70-121
2-HEXANONE (MBK)	ND	10	TOLUENE - D8	97.2	81-117
1,3-DICHLOROPROPANE	ND	5	4-BROMOFLUOROBENZENE	101	74-121

COMMENTS:

ANALYZED BY:



REVIEWED BY:




GZA GEOENVIRONMENTAL, INC.  
 ENVIRONMENTAL CHEMISTRY LABORATORY  
 320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
 MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
 CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID - WATERBURY, CT	PROJECT MGR.: T. CARR
FILE NO.: 41462	DATE SAMPLED: 2/15/95
SAMPLE ID: GZ-8, 25-27'	DATE TESTED: 2/22/95
MATRIX: SOLID	DILUTION FACTOR: 1
LABORATORY #: C2163	

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	TETRACHLOROETHENE	ND	5
CHLOROMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
VINYL CHLORIDE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
BROMOMETHANE	ND	10	CHLOROBENZENE	ND	5
CHLOROETHANE	ND	10	1,1,1,2-TETRACHLOROETHANE	ND	5
TRICHLOROFLUOROMETHANE	ND	20	ETHYL BENZENE	ND	5
ACETONE	ND	125	m&p-XYLENES	ND	5
1,1-DICHLOROETHENE	ND	5	o-XYLENE	ND	5
METHYLENE CHLORIDE	ND	5	STYRENE	ND	5
CARBON DISULFIDE	ND	10	BROMOFORM	ND	10
METHYL tert-BUTYL ETHER (MtBE)	ND	5	ISOPROPYLBENZENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	1,1,2,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHANE	ND	5	1,2,3-TRICHLOROPROPANE	ND	5
VINYL ACETATE	ND	25	BROMOBENZENE	ND	5
2-BUTANONE (MEK)	ND	125	n-PROPYLBENZENE	ND	5
2,2-DICHLOROPROPANE	ND	5	2-CHLOROTOLUENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
CHLOROFORM	ND	5	4-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	tert-BUTYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,1-DICHLOROPROPENE	ND	5	sec-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	p-ISOPROPYLTOLUENE	ND	5
1,2-DICHLOROETHANE	ND	5	1,3-DICHLOROBENZENE	ND	5
BENZENE	ND	5	1,4-DICHLOROBENZENE	ND	5
TRICHLOROETHENE	ND	5	n-BUTYLBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,2-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
DIBROMOMETHANE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MiBK)	ND	5	HEXACHLOROBUTADIENE	ND	5
cis-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
TOLUENE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	SURROGATE	% REC.	LIMITS
1,1,2-TRICHLOROETHANE	ND	5	1,2-DICHLOROETHANE - D4	102	70-121
2-HEXANONE (MBK)	ND	10	TOLUENE - D8	98.0	81-117
1,3-DICHLOROPROPANE	ND	5	4-BROMOFLUOROBENZENE	105	74-121

COMMENTS:

ANALYZED BY: 

REVIEWED BY: 

GZA GEOENVIRONMENTAL, INC.  
ENVIRONMENTAL CHEMISTRY LABORATORY  
320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID - WATERBURY, CT  
FILE NO.: 41462  
SAMPLE ID: GZ-9, 10-12'  
MATRIX: SOLID  
LABORATORY #: C2164

PROJECT MGR.: T. CARR  
DATE SAMPLED: 2/16/95  
DATE TESTED: 2/22/95  
DILUTION FACTOR: 1

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	TETRACHLOROETHENE	ND	5
CHLOROMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
VINYL CHLORIDE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
BROMOMETHANE	ND	10	CHLOROBENZENE	ND	5
CHLOROETHANE	ND	10	1,1,1,2-TETRACHLOROETHANE	ND	5
TRICHLOROFLUOROMETHANE	ND	20	ETHYL BENZENE	ND	5
ACETONE	ND	125	m&p-XYLENES	ND	5
1,1-DICHLOROETHENE	ND	5	o-XYLENE	ND	5
METHYLENE CHLORIDE	ND	5	STYRENE	ND	5
CARBON DISULFIDE	ND	10	BROMOFORM	ND	10
METHYL tert-BUTYL ETHER (MtBE)	ND	5	ISOPROPYLBENZENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	1,1,2,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHANE	ND	5	1,2,3-TRICHLOROPROPANE	ND	5
VINYL ACETATE	ND	25	BROMOBENZENE	ND	5
2-BUTANONE (MEK)	ND	125	n-PROPYLBENZENE	ND	5
2,2-DICHLOROPROPANE	ND	5	2-CHLOROTOLUENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
CHLOROFORM	ND	5	4-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	tert-BUTYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,1-DICHLOROPROPENE	ND	5	sec-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	p-ISOPROPYLTOLUENE	ND	5
1,2-DICHLOROETHANE	ND	5	1,3-DICHLOROBENZENE	ND	5
BENZENE	ND	5	1,4-DICHLOROBENZENE	ND	5
TRICHLOROETHENE	ND	5	n-BUTYLBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,2-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
DIBROMOMETHANE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MIBK)	ND	5	HEXACHLOROBUTADIENE	ND	5
cis-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
TOLUENE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	SURROGATE	% REC.	LIMITS
1,1,2-TRICHLOROETHANE	ND	5	1,2-DICHLOROETHANE - D4	95.9	70-121
2-HEXANONE (MBK)	ND	10	TOLUENE - D8	97.8	81-117
1,3-DICHLOROPROPANE	ND	5	4-BROMOFLUOROBENZENE	102	74-121

COMMENTS:

ANALYZED BY:

*A. J. ...*

REVIEWED BY:

*H. ...*

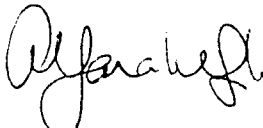
GZA GEOENVIRONMENTAL, INC.  
 ENVIRONMENTAL CHEMISTRY LABORATORY  
 320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
 MASSACHUSETTS LABORATORY I.D. NO.: MA092


EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
 CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID - WATERBURY, CT	PROJECT MGR.: T. CARR
FILE NO.: 41462	DATE SAMPLED: 2/16/95
SAMPLE ID: GZ-10, 5-7'	DATE TESTED: 2/22/95
MATRIX: SOLID	DILUTION FACTOR: 1
LABORATORY #: C2165	

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	TETRACHLOROETHENE	ND	5
CHLOROMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
VINYL CHLORIDE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
BROMOMETHANE	ND	10	CHLOROBENZENE	ND	5
CHLOROETHANE	ND	10	1,1,1,2-TETRACHLOROETHANE	ND	5
TRICHLOROFLUOROMETHANE	ND	20	ETHYL BENZENE	ND	5
ACETONE	ND	125	m&p-XYLENES	ND	5
1,1-DICHLOROETHENE	ND	5	o-XYLENE	ND	5
METHYLENE CHLORIDE	ND	5	STYRENE	ND	5
CARBON DISULFIDE	ND	10	BROMOFORM	ND	10
METHYL tert-BUTYL ETHER (MtBE)	ND	5	ISOPROPYLBENZENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	1,1,2,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHANE	ND	5	1,2,3-TRICHLOROPROPANE	ND	5
VINYL ACETATE	ND	25	BROMOBENZENE	ND	5
2-BUTANONE (MEK)	ND	125	n-PROPYLBENZENE	ND	5
2,2-DICHLOROPROPANE	ND	5	2-CHLOROTOLUENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
CHLOROFORM	ND	5	4-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	tert-BUTYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,1-DICHLOROPROPENE	ND	5	sec-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	p-ISOPROPYLTOLUENE	ND	5
1,2-DICHLOROETHANE	ND	5	1,3-DICHLOROBENZENE	ND	5
BENZENE	ND	5	1,4-DICHLOROBENZENE	ND	5
TRICHLOROETHENE	ND	5	n-BUTYLBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,2-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
DIBROMOMETHANE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MiBK)	ND	5	HEXACHLOROBUTADIENE	ND	5
cis-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
TOLUENE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	SURROGATE	% REC.	LIMITS
1,1,2-TRICHLOROETHANE	ND	5	1,2-DICHLOROETHANE - D4	97.8	70-121
2-HEXANONE (MBK)	ND	10	TOLUENE - D8	96.9	81-117
1,3-DICHLOROPROPANE	ND	5	4-BROMOFLUOROBENZENE	105	74-121

COMMENTS:

ANALYZED BY: 

REVIEWED BY: 

GZA GEOENVIRONMENTAL, INC.  
ENVIRONMENTAL CHEMISTRY LABORATORY  
320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
MASSACHUSETTS LABORATORY I.D. NO.: MA092

EPA METHOD 8260 ANALYSIS FOR VOLATILE ORGANICS BY GC/MS  
CONCENTRATION (PPB-ug/kg - Solid)

PROJECT: MACDERMID - WATERBURY, CT	PROJECT MGR.: T. CARR
FILE NO.: 41462	DATE SAMPLED: 2/16/95
SAMPLE ID: GZ-11, 10-12'	DATE TESTED: 2/23/95
MATRIX: SOLID	DILUTION FACTOR: 1
LABORATORY #: C2170	

TARGET COMPOUND LIST 8260 COMPOUNDS	CONC.	QUANT. LIMIT	TARGET COMPOUND LIST 8260 COMPOUNDS:	CONC.	QUANT. LIMIT
DICHLORODIFLUOROMETHANE	ND	10	TETRACHLOROETHENE	ND	5
CHLOROMETHANE	ND	10	DIBROMOCHLOROMETHANE	ND	5
VINYL CHLORIDE	ND	10	1,2-DIBROMOETHANE (EDB)	ND	10
BROMOMETHANE	ND	10	CHLOROBENZENE	ND	5
CHLOROETHANE	ND	10	1,1,1,2-TETRACHLOROETHANE	ND	5
TRICHLOROFLUOROMETHANE	ND	20	ETHYL BENZENE	ND	5
ACETONE	ND	125	m&p-XYLENES	ND	5
1,1-DICHLOROETHENE	ND	5	o-XYLENE	ND	5
METHYLENE CHLORIDE	ND	5	STYRENE	ND	5
CARBON DISULFIDE	ND	10	BROMOFORM	ND	10
METHYL tert-BUTYL ETHER (MtBE)	ND	5	ISOPROPYLBENZENE	ND	5
trans-1,2-DICHLOROETHENE	ND	5	1,1,2,2-TETRACHLOROETHANE	ND	5
1,1-DICHLOROETHANE	ND	5	1,2,3-TRICHLOROPROPANE	ND	5
VINYL ACETATE	ND	25	BROMOBENZENE	ND	5
2-BUTANONE (MEK)	ND	125	n-PROPYLBENZENE	ND	5
2,2-DICHLOROPROPANE	ND	5	2-CHLOROTOLUENE	ND	5
cis-1,2-DICHLOROETHENE	ND	5	1,3,5-TRIMETHYLBENZENE	ND	5
CHLOROFORM	ND	5	4-CHLOROTOLUENE	ND	5
BROMOCHLOROMETHANE	ND	5	tert-BUTYLBENZENE	ND	5
1,1,1-TRICHLOROETHANE	ND	5	1,2,4-TRIMETHYLBENZENE	ND	5
1,1-DICHLOROPROPENE	ND	5	sec-BUTYLBENZENE	ND	5
CARBON TETRACHLORIDE	ND	5	p-ISOPROPYLTOLUENE	ND	5
1,2-DICHLOROETHANE	ND	5	1,3-DICHLOROBENZENE	ND	5
BENZENE	ND	5	1,4-DICHLOROBENZENE	ND	5
TRICHLOROETHENE	ND	5	n-BUTYLBENZENE	ND	5
1,2-DICHLOROPROPANE	ND	5	1,2-DICHLOROBENZENE	ND	5
BROMODICHLOROMETHANE	ND	5	1,2-DIBROMO-3-CHLOROPROPANE	ND	25
DIBROMOMETHANE	ND	5	1,2,4-TRICHLOROBENZENE	ND	5
4-METHYL-2-PENTANONE (MIBK)	ND	5	HEXACHLOROBUTADIENE	ND	5
cis-1,3-DICHLOROPROPENE	ND	5	NAPHTHALENE	ND	5
TOLUENE	ND	5	1,2,3-TRICHLOROBENZENE	ND	5
trans-1,3-DICHLOROPROPENE	ND	5	SURROGATE	% REC.	LIMITS
1,1,2-TRICHLOROETHANE	ND	5	1,2-DICHLOROETHANE - D4	101	70-121
2-HEXANONE (MBK)	ND	10	TOLUENE - D8	98.8	81-117
1,3-DICHLOROPROPANE	ND	5	4-BROMOFLUOROBENZENE	101	74-121

COMMENTS:

ANALYZED BY:

*Alfonso*

REVIEWED BY:

*K. Hall*

**GZA GeoEnvironmental, Inc.**  
Environmental Chemistry Laboratory  
320 Needham St., Newton Upper Falls, MA 02164  
LABORATORY ID: MA092 41462.XLS  
METALS ANALYSIS - TCLP

**FINAL DATA**

PROJECT: MacDermid Inc.  
PROJECT MGR.: T. Carr  
JOB NO: 41462  
MATRIX: (TCLP extract)  
GROUP: R-8  
UNITS: mg/L (ppm)

SAMPLE ID:	GZ-1/S-1	GZ-2/S-2	GZ-3/S-1	GZ-5/S-1
BATCH NO.: 01041,04295				
DATE SAMPLED: 1/12-13/95				
DATE PREPARED: 1/24/95				
DATE ANALYZED: 1/26,2/1/95				

Analyte	METHOD*	CONC.	D.L.	CONC.	D.L.	CONC.	D.L.	CONC.	D.L.
Silver (Ag)	6010	BDL	0.007	BDL	0.007	BDL	0.007	BDL	0.007
Arsenic (As)	6010	BDL	0.100	BDL	0.100	BDL	0.100	BDL	0.100
Barium (Ba)	6010	0.395	0.003	0.538	0.003	0.714	0.003	0.197	0.003
Cadmium (Cd)	6010	BDL	0.004	0.032	0.004	BDL	0.004	BDL	0.004
Chromium (Cr)	6010	0.084	0.005	0.017	0.005	0.038	0.005	0.014	0.005
Lead (Pb)	6010	0.068	0.003	0.100	0.003	1.08	0.003	0.043	0.003
Selenium (Se)	6010	BDL	0.100	BDL	0.100	BDL	0.100	BDL	0.100
Mercury (Hg)	7471	BDL	0.0002	BDL	0.0002	BDL	0.0002	BDL	0.0002
Copper (Cu)	6010	BDL	0.020	8.15	0.020	1.04	0.020	BDL	0.020
Zinc (Zn)	6010	0.102	0.020	2.84	0.020	0.351	0.020	0.049	0.020
Nickel (Ni)	6010	BDL	0.050	BDL	0.050	0.052	0.050	BDL	0.050

BDL=BELOW DETECTION LIMIT  
N/A = NOT ANALYZED  
\*DENOTES EPA METHODS

  
ANALYZED BY:

  
REVIEWED BY:




**GZA GeoEnvironmental, Inc.**  
Environmental Chemistry Laboratory  
320 Needham St., Newton Upper Falls, MA 02164  
LABORATORY ID: MA092 41462.XLS  
METALS ANALYSIS - TCLP

**FINAL DATA**

PROJECT: MacDermid Inc.  
PROJECT MGR.: T. Carr  
JOB NO: 41462  
MATRIX: (TCLP extract)  
GROUP: R-8  
UNITS: mg/L (ppm)  
SAMPLE ID: **GZ-6/S-1**  
BATCH NO.: 01041,04295  
DATE SAMPLED: 1/12-13/95  
DATE PREPARED: 1/24/95  
DATE ANALYZED: 1/26,2/1/95

Analyte	METHOD*	CONC.	D.L.
Silver (Ag)	6010	BDL	0.007
Arsenic (As)	6010	BDL	0.100
Barium (Ba)	6010	0.324	0.003
Cadmium (Cd)	6010	BDL	0.004
Chromium (Cr)	6010	0.026	0.005
Lead (Pb)	6010	0.196	0.003
Selenium (Se)	6010	BDL	0.100
Mercury (Hg)	7471	BDL	0.0002
Copper (Cu)	6010	0.149	0.020
Zinc (Zn)	6010	0.131	0.020
Nickel (Ni)	6010	BDL	0.050

BDL=BELOW DETECTION LIMIT  
N/A = NOT ANALYZED  
\*DENOTES EPA METHODS

  
ANALYZED BY:

  
REVIEWED BY:

**GZA GeoEnvironmental, Inc.**  
Environmental Chemistry Laboratory  
320 Needham St., Newton Upper Falls, MA 02164  
LABORATORY ID: MA092 41462A.XLS  
METALS ANALYSIS - TCLP

**FINAL DATA**

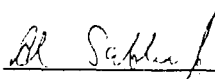
PROJECT: MacDermid  
PROJECT MGR.: T. Carr  
JOB NO: 41462  
MATRIX: AQUEOUS (TCLP extract)  
GROUP: R-8  
UNITS: mg/L (ppm)  
SAMPLE ID:  
BATCH NO.: 02037,03895  
DATE SAMPLED: 2/15-16/95  
DATE PREPARED: 2/24/95  
DATE ANALYZED: 2/27-28,3/30/95/95

Analyte	METHOD*	GZ-7		GZ-8 S-6		GZ-8 S-1	
		CONC.	D.L.	CONC.	D.L.	CONC.	D.L.
Silver (Ag)	6010	BDL	0.007	BDL	0.007	0.013	0.007
Arsenic (As)	6010	BDL	0.005	BDL	0.005	BDL	0.005
Barium (Ba)	6010	0.313	0.003	0.323	0.003	0.439	0.003
Cadmium (Cd)	6010	BDL	0.004	BDL	0.004	0.013	0.004
Chromium (Cr)	6010	0.057	0.005	0.154	0.005	0.132	0.005
Lead (Pb)	6010	0.028	0.003	0.064	0.003	0.052	0.003
Selenium (Se)	6010	BDL	0.005	BDL	0.005	BDL	0.005
Mercury (Hg)	7471	BDL	0.0002	BDL	0.0002	BDL	0.0002
Copper (Cu)	6010	BDL	0.020	0.905	0.020	1.39	0.020
Zinc (Zn)	6010	0.134	0.020	0.198	0.020	0.456	0.020
Nickel (Ni)	6010	BDL	0.054	BDL	0.054	0.142	0.054

BDL=BELOW DETECTION LIMIT

N/A = NOT ANALYZED

\*DENOTES EPA METHODS

  
ANALYZED BY:

  
REVIEWED BY:

**GZA GeoEnvironmental, Inc.**  
Environmental Chemistry Laboratory  
320 Needham St., Newton Upper Falls, MA 02164  
LABORATORY ID: MA092 41462A.XLS  
METALS ANALYSIS - TCLP

**FINAL DATA**

PROJECT: MacDermid  
PROJECT MGR.: T. Carr  
JOB NO: 41462  
MATRIX: AQUEOUS (TCLP extract)  
GROUP: R-8  
UNITS: mg/L (ppm)  
SAMPLE ID:  
BATCH NO.: 02037,03895  
DATE SAMPLED: 2/15-16/95  
DATE PREPARED: 2/24/95  
DATE ANALYZED: 2/27-28,3/30/95/95

**GZ-9**

**GZ-10**

**GZ-11**

Analyte	METHOD*	CONC.	D.L.	CONC.	D.L.	CONC.	D.L.
Silver (Ag)	6010	BDL	0.007	BDL	0.007	BDL	0.007
Arsenic (As)	6010	BDL	0.005	BDL	0.005	BDL	0.005
Barium (Ba)	6010	0.785	0.003	0.341	0.003	0.655	0.003
Cadmium (Cd)	6010	0.015	0.004	0.011	0.004	0.018	0.004
Chromium (Cr)	6010	0.642	0.005	0.036	0.005	0.155	0.005
Lead (Pb)	6010	0.378	0.003	0.056	0.003	0.194	0.003
Selenium (Se)	6010	BDL	0.005	BDL	0.005	BDL	0.005
Mercury (Hg)	7471	BDL	0.0002	BDL	0.0002	BDL	0.0002
Copper (Cu)	6010	3.36	0.020	0.508	0.020	9.12	0.020
Zinc (Zn)	6010	3.29	0.020	0.215	0.020	1.82	0.020
Nickel (Ni)	6010	0.817	0.054	BDL	0.054	1.71	0.054

\*DL=BELOW DETECTION LIMIT  
= NOT ANALYZED  
\*OTES EPA METHODS

*Al Sablan*

ANALYZED BY:

*M. J. L.*

REVIEWED BY:

GZA GEOENVIRONMENTAL, INC.  
 ENVIRONMENTAL CHEMISTRY LABORATORY  
 320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
 MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 8240/8260 ANALYSIS  
 PURGEABLES IN AQUEOUS AND/OR SOLID MATRIX

QUALITY CONTROL

DATE: 1/18/95 - GILBERT

AQUEOUS

COMPOUND	MATRIX SPIKE RECOVERY (%)	ACCEPTANCE LIMITS (%)	DUPLICATE SPIKE DIFFERENCE (%)	ACCEPTANCE LIMITS (%)
1,1-DICHLOROETHENE	---	60-120	---	20
TRICHLOROETHENE	---	70-130	---	20
TOLUENE	---	70-125	---	20

SOLID

COMPOUND	MATRIX SPIKE RECOVERY (%)	ACCEPTANCE LIMITS (%)	DUPLICATE SPIKE DIFFERENCE (%)	ACCEPTANCE LIMITS (%)
1,1-DICHLOROETHENE	105	60-120	2.90	35
BENZENE	114	65-130	0.88	35
TOLUENE	112	65-125	0.00	35

METHOD BLANK

LABORATORY NO.: C1924

TOTAL COMPOUNDS DETECTED	ND
--------------------------	----

SURROGATES	RECOVERY (%)	ACCEPTANCE LIMITS (%)
1,2-DICHLOROETHANE-D4	100	76-114
TOLUENE-D8	102	88-110
4-BROMOFLUOROBENZENE	92.9	86-115

GZA GEOENVIRONMENTAL, INC.  
 ENVIRONMENTAL CHEMISTRY LABORATORY  
 320 NEEDHAM STREET, NEWTON UPPER FALLS, MA 02164  
 MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 8240/8260 ANALYSIS  
 PURGEABLES IN AQUEOUS AND/OR SOLID MATRIX

QUALITY CONTROL

DATE: 2/22/95 - GILBERT

A Q U E O U S

COMPOUND	MATRIX SPIKE RECOVERY (%)	ACCEPTANCE LIMITS (%)	DUPLICATE SPIKE DIFFERENCE (%)	ACCEPTANCE LIMITS (%)
1,1-DICHLOROETHENE	--	60-120	--	20
TRICHLORETHENE	--	70-130	--	20
TOLUENE	--	70-125	--	20

S O L I D

COMPOUND	MATRIX SPIKE RECOVERY (%)	ACCEPTANCE LIMITS (%)	DUPLICATE SPIKE DIFFERENCE (%)	ACCEPTANCE LIMITS (%)
1,1-DICHLOROETHENE	99.9	60-120	7.26	35
TRICHLORETHENE	109	65-130	3.74	35
TOLUENE	105	65-125	5.68	35

M E T H O D   B L A N K

LABORATORY NO.: C2157

TOTAL COMPOUNDS DETECTED	ND
--------------------------	----

SURROGATES	RECOVERY (%)	ACCEPTANCE LIMITS (%)
1,2-DICHLOROETHANE-D4	91.6	76-114
TOLUENE-D8	94.6	88-110
4-BROMOFLUOROBENZENE	98.8	86-115

## CHAIN-OF-CUSTODY RECORD

No 0451

Sample I.D.	Time (24hr.)	Bailer #	Col- lector's Initials	Location Description	Sample Type	ANALYSES REQUIRED												Total # of Cont.	Note #
						52.2	8010	8020	8080	8270	GC Screen	TPH-IR	TPH-IR	TPH-IR	TPH-IR	TPH-IR	TPH-IR		
✓ GZ-1/5-1			SCW	0-2'	S													1	✓
✓ GZ-1/5-5			SCW	20-22'	S													1	
✓ GZ-2/5-2				5-7'	S													1	
✓ GZ-2/5-3				10-12	S													1	
✓ GZ-3/5-1				0.5-2.5	S													2	
✓ GZ-5/5-1				0-2	S													2	
✓ GZ-6/5-1				0.5-2.5	S													2	

## TOTAL NUMBER OF CONTAINERS

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

NOTES, Preservatives, etc.:

All VOA materials have been preserved w/ 1:1 HCl in accordance with Mass-DEP Policy.

Analysis for:

8260 VOCs

TPH per T. Carr 3/11/89 9:30

RCRA 8 Metals (Arsenic, Barium, Cadmium, Lead, Chromium, Mercury, Selenium, Silver) and

Copper, Nickel and Zinc.

Thanks

ANALYTICAL LABORATORY: CZA ECL

LABORATORY CONTACT: Kabe

GZA CONTACT: Tim

EXT: \_\_\_\_\_

GZA GEOENVIRONMENTAL, INC.

ENGINEERS AND SCIENTISTS

27 Naak Road

VERNON, CONNECTICUT 06066

(203) 875-7655

FAX (203) 872-2416

GZA FILE NO. 4/14/62

PROJECT MacDermid, Inc.

LOCATION Waterbury, CT

COLLECTOR(S) James White

DATE(S) OF COLLECTION 1/12 &amp; 13/95

SHEET 1

OF 1

# CHAIN-OF-CUSTODY RECORD

Q No 1836

Sample I.D.	Time (24hr)	Bailer #	Collector's Initials	Location Description	Sample Type	ANALYSES REQUIRED													Total # of Cont.	Note #
						5242	8240	8010	8020	8080	8270	GC Screen	TC P Screen	TPH-R	TPH-GC	HNU	ROA Mark (Hand)	ROA Mark (Lab)		
GZ-7			A.B.	5'-7'	Soil														1	1
GZ-7				15'-17'															1	2
GZ-8	5-1			0'-2'															1	
GZ-8				0'-2'															1	
GZ-8	5-6			25'-27'															1	
GZ-8				25'-27'															1	
GZ-9				10'-12'															1	
GZ-9				10'-12'															1	
GZ-10				5'-7'															1	
GZ-10				5'-7'															1	
GZ-11				10'-12'															1	
GZ-11				10'-12'															1	
TOTAL NUMBER OF CONTAINERS																			12	

NOTES, Preservatives, etc.:

Unless otherwise noted, all VOA vials have been preserved w/ 1:1 HCl in accordance with Mass-DEP Policy.

① Please Analyze for TCLP Metals: Silver, Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Mercury, Copper, Zinc, and Manganese

② Please Analyze for VOC's by EPA Method 8260

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
<i>[Signature]</i>	7/2/95 4:30	<i>[Signature]</i>
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
<i>[Signature]</i>	7/2/95 10:00	<i>[Signature]</i>
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)

ANALYTICAL LABORATORY: GZA - ECC  
 LABORATORY CONTACT: Kate Walsh PHONE: EXT: 302  
 GZA CONTACT: Tim Carr

GZA GEONVIRONMENTAL, INC.  
 ENGINEERS AND SCIENTISTS

27 Naak Road  
 VERNON, CONNECTICUT 06066  
 (203) 875-7655  
 FAX (203) 872-2316

GZA FILE NO: 41462 PO. NO.  
 PROJECT: Mac Dermid  
 LOCATION: Waterbury CT  
 COLLECTOR(S): Alex Roseveit  
 DATE(S) OF COLLECTION: 2/15/95 - 2/16/95 SHEET 1 OF 1

## **MATERIAL SAFETY DATA SHEET**

**Product: : SODA ASH**

Page 2 of 5

HVC, Inc.

---

### **4. FIRST AID MEASURES**

**Skin:** Remove contaminated clothing and flush affected areas with water. If irritation persists, get medical attention.

**Eyes:** Flush with plenty of water for at least 15 minutes while holding eyelids apart. If irritation persists, get medical attention.

**Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration and get medical attention immediately.

**Ingestion:** If conscious, give 1 – 2 glasses of water to dilute. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Get medical attention.

**Special Notes:** All treatments should be based on observed signs and symptoms of distress in the patient.

---

### **5. FIRE FIGHTING MEASURES**

**Flash Point (degrees F) and Test Method:** Not flammable.

**Autoignition Temperature:** Not applicable.

**Flammability Limits in air (% V):** Not applicable.

**Extinguishing Media:** Use media appropriate for surrounding materials.

**Special Fire Fighting Procedures:** None.

**Unusual Fire & Explosion Hazards:** If product is involved in a fire, carbon dioxide may evolve.

---

### **6. ACCIDENTAL RELEASE MEASURES**

**Small Spills:** Shovel and place in appropriate containers for reuse or disposal. Remaining traces with plenty of water to sewers if local regulations permit.

**Large Spills:** Collect as much as possible for re-use. Collect remaining material and place in closed containers for disposal, reuse or neutralize with a dilute acid. Flush remaining traces with water to sewers.

**Neutralizing Materials:** Dilute acids.



## MATERIAL SAFETY DATA SHEET

**Product: SODA ASH**

Page 3 of 5

HVC, Inc.

---

### 7. HANDLING AND STORAGE

**Handling and Storage Precautions:**

Clean up all spills immediately.

Store product in a cool, dry and well ventilated area.

Avoid contact with acids in enclosed areas as carbon dioxide is generated which may displace the oxygen.

**Other precautions:** Keep containers closed when not in use.

---

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation:** General ventilation should be adequate in typical applications of this product; if mists are present, use sufficient local ventilation to remove them.

**Respiratory Protection:** If mists are present, use a NIOSH approved respirator for mists. Respirator use should be in accordance with 29 CFR 1910.134.

**Eye Protection:** Safety glasses or goggles.

**Other Protective Equipment:** Neoprene or PVC gloves recommended. Rubber or PVC apron will provide additional protection.

---

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point @ 760 mm Hg (degrees F):** Decomposes

**Freezing Point (degrees F):** Melts at 1564°.

**pH:** 11.3 at 1%

**Percent volatile by weight (%):** Not applicable.

**Specific Gravity or bulk density:** 2.53 at 68°F.

**Solubility in Water:** Soluble.

**Appearance and odor:** White, solid briquette.

**Vapor Pressure mm Hg @ 20 degrees C:** Not applicable.

**Vapor Density (Air = 1):** Not applicable.

**Evaporation Rate (BuAc = 1):** Not applicable.

## **MATERIAL SAFETY DATA SHEET**

**Product: : SODA ASH**

Page 4 of 5

HVC, Inc.

---

### **10. STABILITY AND REACTIVITY**

**Product Stability:**

Conditions to avoid: Damp or wet storage areas.

**Chemical Incompatibility:** Acids, water reactive materials, magnesium, aluminum, fluorine, moisture, phosphorus pentoxide

**Hazardous Decomposition Products:** Carbon dioxide.

**Hazardous Polymerization:** Will not occur.

---

### **11. TOXICOLOGICAL INFORMATION**

LC 50 – 2300 mg/cu.m/2 hour (rat)

LD50 – 4090 mg/kg (rat)

---

### **12. ECOLOGICAL INFORMATION**

Daphnia Magna 96 hr  $LC_{50}$  = 265 – 565 mg/L

Bluegill sunfish 96 hr  $LC_{50}$  = 300 – 320 mg/L

---

### **13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods:** Follow all local, state and federal regulations regarding hazardous waste.

---

### **14. TRANSPORT INFORMATION**

**D.O.T. Proper Shipping Name:** Not regulated.

**D.O.T. Hazard Class:** Not applicable

**D.O.T. Labels Required:** Not applicable

**UN/NA Code:** Not applicable.

**Reportable Quantity Amount:** Not applicable.

## MATERIAL SAFETY DATA SHEET

**Product: : SODA ASH**

Page 5 of 5

HVC, Inc.

---

### 15. REGULATORY INFORMATION

**Section 313 Supplier Notification:**

<u>CAS Registry No.</u>	<u>Chemical Ingredient</u>	<u>Percent Wt.</u>
None		

---

### 16. OTHER INFORMATION

**Hazardous Material Identification System Rating (HMIS):**

Health:	2
Flammability:	0
Reactivity:	0
Personal Protection:	B

Reason for Issue:	New format.
Prepared by:	Allan T. Cowie
Title:	Technical Director
Approval Date:	10/25/99
Product Code(s):	2802

**Disclaimer:**

The information contained herein is based on data available to use and is believed to be correct. However, HVC makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. HVC assumes no responsibility for injury from the use of the product described herein.

N.A. = Not Applicable  
N.D. = Not Determined  
N.E. = Not Established

Format: 05/16/97  
Sodash.doc



## MATERIAL SAFETY DATA SHEET

43939

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS NUMBER : M5420

ISSUE DATE : 10-05-98

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

Manufacturer's Name and Address : Occidental Chemical Corporation, Occidental Tower  
5005 LBJ Freeway, P.O. Box 809050  
Dallas, TX 75380 (972) 404-3800

24 HOUR EMERGENCY TELEPHONE : 1-800-733-3665 OR 972-404-3228

TO REQUEST AN MSDS : 1-800-699-4970

CUSTOMER SERVICE : 1-800-752-5151

PRODUCT USE : Detergents, Industrial Cleaners

CHEMICAL NAME : Sodium Metasilicate Anhydrous

CHEMICAL FORMULA :  $\text{Na}_2\text{SiO}_3$ 

SYNONYMS/COMMON NAMES : ANHYDROUS METASILICATE  
SODIUM METASILICATE ANHYDROUS

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NUMBER / NAME  
6834-92-0 / Silicic acid ( $\text{H}_2\text{SiO}_3$ ), disodium salt

EXPOSURE LIMITS	PERCENTAGE
PEL: Not Established	VOL ND
TLV: Not Established	WT 95-99.5

COMMON NAMES:  
SODIUM METASILICATE

Listed On (List Legend Below):  
00 19 22 23 50 51

LIST LEGEND	
00 TSCA INVENTORY	19 PA REQUIREMENT- 3% OR GREATER
22 CANADIAN DOMESTIC SUB LIST	23 NJ REQUIREMENT- 1% OR GREATER
50 PHILIPPINES INVENTORY (PICCS)	51 EINECS

OCCIDENTAL CHEMICAL CORPORATION

MSDS NUMBER : MS420

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

PAGE 2 OF 12

10-05-98

### 3. HAZARDS IDENTIFICATION

#### \*\*\*\*\* EMERGENCY OVERVIEW \*\*\*\*\*

\* MAY CAUSE PERMANENT EYE DAMAGE. CORROSIVE TO EYES, SKIN,  
\* RESPIRATORY AND DIGESTIVE TRACT.

\* White granular solid, no odor.

#### POTENTIAL HEALTH EFFECTS

##### ROUTES OF ENTRY:

Ingestion, Inhalation.

##### TARGET ORGANS:

Eyes, Skin, Respiratory Tract, Gastrointestinal Tract.

##### IRRITANCY:

Severe, Potentially by all routes of exposure.

##### SENSITIZING CAPABILITY:

None known.

##### REPRODUCTIVE EFFECTS:

None known.

##### CANCER INFORMATION:

None known.

#### SHORT-TERM EXPOSURE (ACUTE)

##### INHALATION:

May cause coughing, sneezing or other symptoms of upper respiratory tract irritation. Exposure may result in lung tissue damage due to corrosive effects.

##### EYES:

Overexposure will cause severe burns and potential permanent damage.

##### SKIN:

Contact may cause burns and tissue destruction.

Exposure can cause burns which are not immediately painful or visible.

##### INGESTION:

Can cause severe burns to the mucous membranes of the digestive tract.

#### REPEATED EXPOSURE (CHRONIC)

No known chronic effects.

---

### 3. HAZARDS IDENTIFICATION (Continued)

---

#### SYNERGISTIC MATERIALS:

None known.

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known.

---

### 4. FIRST AID MEASURES

---

#### EYES:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

#### SKIN:

Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

#### INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY.

#### INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

#### NOTES TO PHYSICIAN:

No specialized procedures. Treat for clinical symptoms.

---

### 5. FIRE FIGHTING MEASURES

---

Flash Point: Nonflammable

Method: Not Applicable

Autoignition Temperature: Nonflammable

#### FLAMMABLE LIMITS IN AIR, BY % VOLUME

Upper: Not applicable

Lower: Not applicable

---

## 5. FIRE FIGHTING MEASURES (Continued)

---

### EXTINGUISHING MEDIA:

Non-flammable / Non-combustible.

Use agents appropriate for surrounding fire.

### FIRE FIGHTING PROCEDURES:

Wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus and full protective clothing.

### FIRE AND EXPLOSION HAZARD:

Direct contact with water creates heat and may cause spattering.

### SENSITIVITY TO MECHANICAL IMPACT:

Not sensitive.

### SENSITIVITY TO STATIC DISCHARGE:

Not sensitive.

---

## 6. ACCIDENTAL RELEASE MEASURES

---

### PERSONAL PRECAUTIONS:

Evacuate unnecessary personnel.

Follow protective measures provided under Personal Protection in Section 8.

### ENVIRONMENTAL PRECAUTIONS:

Do not flush to sewer.

Spills or releases should be reported, if required, to the appropriate local, state and federal agencies.

### METHODS FOR CLEANING UP:

Dry material can be shoveled up, liquid material can be removed with a vacuum truck. Neutralize remaining traces with any dilute inorganic acid (hydrochloric, sulfuric or acetic acid). Flush spill area with water followed by a liberal covering of sodium carbonate. All clean-up material should be removed for proper treatment or disposal. Spills on other than pavement (eg. dirt or sand) may be handled by removing the affected soil and placing in approved containers.

---

## 7. HANDLING AND STORAGE

---

### HANDLING:

Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the MSDS.

OCCIDENTAL CHEMICAL CORPORATION

PAGE 5 OF 12

10-05-98

MSDS NUMBER : M5420

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

---

## 7. HANDLING AND STORAGE (Continued)

---

Do not get in eyes, on skin or clothing.

Avoid breathing airborne particulates; wear respiratory protection when exposure is possible.

Wash contaminated clothing before reuse.

Wash thoroughly with soap and water after handling.

Avoid contact with acids.

### SPECIAL MIXING AND HANDLING INSTRUCTIONS:

Do not allow contact with materials as noted in Section 10.

Direct contact with water creates heat and may cause spattering.

Always add product slowly to liquid surface, with constant stirring to assure that product is completely dissolved as it is added to dissipate heat.

### STORAGE:

Keep container tightly closed and properly labeled.

Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas can be generated.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### ENGINEERING CONTROLS:

Use adequate local exhaust ventilation where dust, mist or spray may be generated.

### PERSONAL PROTECTION

#### RESPIRATORY:

Wear a NIOSH/MSHA approved respirator following manufacturer's recommendations, where airborne contaminants may occur.

#### EYE/FACE:

Wear chemical safety goggles plus full face shield to protect against contact when appropriate (ANSI Z87.1).

#### SKIN:

Wear protective clothing to minimize skin contact.

Wear chemical resistant gloves such as rubber, neoprene or vinyl.

Wash contaminated clothing and dry before reuse.



OCCIDENTAL CHEMICAL CORPORATION

MSDS NUMBER : MS420

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

PAGE 6 OF 12

10-05-98

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)**

---

**OTHER:**

Emergency shower and eyewash facility should be in close proximity  
(ANSI Z358.1).

---

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

---

Appearance and Odor: White granular solid, no odor.

Odor Threshold: Not available

Specific Gravity (Water=1): Not available

Vapor Pressure: Not applicable

Vapor Density (Air=1): Not applicable

Density: 54 - 62 lbs./cu. ft. (loose)

Evaporation Rate: Not applicable

% Volatiles by Wt: Not applicable

Boiling Point: Not applicable

Freezing Point: Not applicable

Melting Point: 1089°C (1992°F)

Solubility in Water (% by wt.): 18

pH: 12.7 in a 1% solution @ 20°C

Octanol/Water Partition Coefficient: Not applicable

Thermal Decomposition Temperature: Not available

Other: Not available

VOC (g/l. by wt.): Not applicable

---

---

**10. STABILITY AND REACTIVITY**

---

**CHEMICAL STABILITY:**

  X   STABLE        UNSTABLE

**REACTS WITH:**

<u>      </u> AIR	<u>      </u> OXIDIZERS	<u>  X  </u> METALS
<u>  X  </u> WATER	<u>  X  </u> ACIDS	<u>      </u> OTHER
<u>      </u> HEAT	<u>      </u> ALKALIS	<u>      </u> NONE

10-05-98

OCCIDENTAL CHEMICAL CORPORATION

MSDS NUMBER : MS420

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

---

## 10. STABILITY AND REACTIVITY (Continued)

---

### HAZARDOUS POLYMERIZATION:

           OCCURS  X  

WILL NOT OCCUR

#### COMMENTS:

Avoid contact with acids.

Direct contact with water creates heat and may cause spattering.

Prolonged contact with metals, such as aluminum, tin, lead and zinc may produce flammable hydrogen gas.

#### HAZARDOUS DECOMPOSITION PRODUCTS:

None.

---

## 11. TOXICOLOGICAL INFORMATION

---

6834-92-0          Silicic acid (H<sub>2</sub>SiO<sub>3</sub>), disodium salt

ACUTE ORAL LD50 :                      (rat)                      800 mg/kg

PRIMARY SKIN IRRITATION :    (rabbit, 24hr)              250 mg (severe)

Product may be considered highly alkaline.

Exposure to this material may be evaluated as:

PEL=2mg/m<sup>3</sup> Ceiling as NaOHTLV=2mg/m<sup>3</sup> Ceiling as NaOH

Revised

---

## 12. ECOLOGICAL INFORMATION

---

6834-92-0          Silicic acid (H<sub>2</sub>SiO<sub>3</sub>), disodium salt

#### AQUATIC ECOTOX DATA

Fish:

LC50 (96 hr.)          (Mosquitofish)                      530 mg/L

---

## 12. ECOLOGICAL INFORMATION (Continued)

---

### Invertebrates:

LC50 (48 hr.) (Water Flea) 113 mg/L

LC50 (96 hr.) (Scud) 160 mg/L

LC50 (28 day) (Polychaete) 210-250 ug/L

### TERRESTRIAL ECOTOX DATA

#### Wildlife:

LD50 (oral) (Mouse) 770 mg/kg

### ENVIRONMENTAL FATE DATA

#### Biotic:

Biodeg. Inorganic, not subject to biodegradation

Water Sol. 100 %

There is limited information available on the environmental fate and effects of this material. This material has exhibited moderate toxicity to aquatic organisms, while exhibiting slight toxicity to terrestrial organisms. This compound is inorganic and not subject to biodegradation. It is miscible in water, non-volatile, and will not bioaccumulate in organisms. This compound is alkaline and may raise the pH of surface waters with low buffering capacity if spilled. Due caution should be exercised to prevent the accidental release of this material to the environment.

---

## 13. DISPOSAL CONSIDERATIONS

---

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

---

## 14. TRANSPORT INFORMATION

---

DOT PROPER SHIPPING NAME: Corrosive Solid, Basic, Inorganic, NOS  
(Sodium Metasilicate Anhydrous)

DOT HAZARD CLASS: 8

DOT IDENTIFICATION NO: UN3262

DOT PACKING GROUP: II

DOT HAZARDOUS SUBSTANCE: Not Applicable

DOT MARINE POLLUTANT(S): Not Applicable

ADDITIONAL DESCRIPTION REQUIREMENT: Not Applicable

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M5420  
PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

PAGE 9 OF 12  
10-05-98

---

## 15. REGULATORY INFORMATION

---

### U.S. FEDERAL REGULATIONS:

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

To aid our customers in complying with regulatory requirements, SARA Title III Hazard Categories for this product are indicated below. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40.CFR.370. Please consult those regulations for details.

### TSCA:

All components of this product that are required to be on the TSCA inventory are listed on the inventory.

### SARA/TITLE III HAZARD CATEGORIES:

Immediate(Acute) Health:	<u>YES</u>	Reactive Hazard	<u>NO</u>
Delayed(Chronic) Health:	<u>NO</u>	Sudden Release of Pressure	<u>NO</u>
Fire Hazard:	<u>NO</u>		

### HMIS HAZARD RATINGS:

HEALTH HAZARD: 3 FIRE HAZARD: 0 REACTIVITY: 1

### STATE REGULATIONS:

See Section 2. COMPOSITION/INFORMATION ON INGREDIENTS list legend for applicable state regulation.

Consult local laws for applicability.

### INTERNATIONAL REGULATIONS:

Consult the regulations of the importing country.

### CANADA:

WHMIS Hazard Class: E

---

## 16. OTHER INFORMATION

---

For additional non-emergency health, safety or environmental information telephone (972) 404-2076 or write to:

Occidental Chemical Corporation  
Product Stewardship Department  
5005 LBJ Freeway  
P.O. Box 809050  
Dallas, Texas 75380

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : MS420  
PRODUCT NAME : S - E SODIUM METASILICATE ANHYDROUS

PAGE 10 OF 12  
10-05-98

---

## 16. OTHER INFORMATION (Continued)

---

### MSDS LEGEND:

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstracts Service Registry Number

CEILING = Ceiling Limit (15 Minutes)

CEL = Corporate Exposure Limit

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit (OSHA)

STEL = Short Term Exposure Limit (15 Minutes)

TDG = Transportation of Dangerous Goods (Canada)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average (8 Hours)

WHMIS = Worker Hazardous Materials Information System (Canada)

\* = See Section 3 Hazards Identification - Repeated Exposure (Chronic) Information

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, STABILITY OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state or local laws, rules, regulations or ordinances.

---

## 17. WARNING LABEL INFORMATION

---

### SIGNAL WORD:

DANGER

### HAZARD WARNINGS:

MAY CAUSE PERMANENT EYE DAMAGE.

CORROSIVE TO EYES, SKIN, RESPIRATORY AND DIGESTIVE TRACT.

### PRECAUTIONS:

Avoid contact with eyes, skin and clothing.

OCCIDENTAL CHEMICAL CORPORATION

PAGE 11 OF 12

MSDS NUMBER : MS420

10-05-98

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

---

**17. WARNING LABEL INFORMATION (Continued)**

---

Avoid breathing dust, vapors or mist.

Do not swallow.

Use with adequate ventilation.

Wear a NIOSH/MSHA approved respirator, chemical splash goggles, full face shield, protective clothing and chemical resistant gloves.

Wash thoroughly after handling; exposure can cause burns which are not immediately painful or visible.

When making solutions, always follow HANDLING instructions.

Avoid contact with acids.

Prolonged contact with metals, such as aluminum, tin, lead and zinc may produce flammable hydrogen gas.

Keep container tightly closed and properly labeled.

Before using, read Material Safety Data Sheet (MSDS) for this material.

**FIRST AID****EYES:**

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN:**

Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

**INHALATION:**

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY.

**INGESTION:**

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

**IN CASE OF SPILL OR LEAK:**

Do not flush to sewer.

OCCIDENTAL CHEMICAL CORPORATION

PAGE 12 OF 12

MSDS NUMBER : MS420

10-05-98

PRODUCT NAME : S - 25, SODIUM METASILICATE ANHYDROUS

---

**17 WARNING LABEL INFORMATION (Continued)**

---

Dry material can be shoveled up, liquid material can be removed with a vacuum truck. Neutralize remaining traces with any dilute inorganic acid (hydrochloric, sulfuric or acetic acid). Flush spill area with water followed by a liberal covering of sodium carbonate. All clean-up material should be removed for proper treatment or disposal. Spills on other than pavement (eg. dirt or sand) may be handled by removing the affected soil and placing in approved containers.

Spills or releases should be reported, if required, to the appropriate local, state and federal agencies.

**FIRE:**

Non-flammable / Non-combustible.

Use extinguishing medium as appropriate for surrounding fire.

**HANDLING AND STORAGE:**

Direct contact with water creates heat and may cause spattering.

Always add product slowly to liquid surface, with constant stirring to assure that product is completely dissolved as it is added to dissipate heat.

Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas can be generated.

**DISPOSAL:**

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

**INFORMATION REQUIRED BY FEDERAL, STATE OR LOCAL REGULATIONS:**

This Product Contains:

CAS#	NAME
------	------

6834-92-0	Silicic acid (H <sub>2</sub> SiO <sub>3</sub> ), disodium salt
-----------	--

HMIS RATING: HEALTH 3 FLAMMABILITY 0 REACTIVITY 1

LABEL NUMBER: 0198M5420

For Industrial Use Only

**MATERIAL SAFETY DATA SHEET**411620  
411625**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**411628  
411685**MSDS NUMBER :** M32413**ISSUE DATE :** 01-01-98**PRODUCT NAME :** CAUSTIC SODA ANHYDROUS (ALL GRADES)

**Manufacturer's Name and Address :** Occidental Chemical Corporation, Occidental Tower  
5005 LBJ Freeway, P.O. Box 809050  
Dallas, TX 75380 (972) 404-3800

**24 HOUR EMERGENCY TELEPHONE :** 1-800-733-3665 OR 972-404-3228**TO REQUEST AN MSDS :** 1-800-699-4970**CUSTOMER SERVICE :** 1-800-752-5151

**PRODUCT USE :** Metal Finishing, Industrial Cleaners, Drum  
Cleaners, Petroleum Industry, Chemical Processing

**CHEMICAL NAME :** Sodium hydroxide**CHEMICAL FORMULA :** NaOH**SYNONYMS/COMMON NAMES :** Sodium hydroxide-dry**2. COMPOSITION/INFORMATION ON INGREDIENTS**

**CAS NUMBER / NAME**  
1310-73-2 Sodium hydroxide (Na(OH))

**EXPOSURE LIMITS**PEL: 2 mg/m<sup>3</sup>, CeilingTLV: 2 mg/m<sup>3</sup>, Ceiling**PERCENTAGE**

VOL ND

WT 97-98.20

**COMMON NAMES :**  
CAUSTIC SODA

**Listed On (List Legend Below) :**  
00 13 18 21 22 50 51



OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 2 OF 18  
01-01-98

## 2. COMPOSITION/INFORMATION ON INGREDIENTS (Continued)

7647-14-5 Sodium chloride (NaCl)

### EXPOSURE LIMITS

PEL:None established  
TLV:None established

### PERCENTAGE

VOL ND  
WT 0-1.20

### COMMON NAMES:

SALT

Listed On(List Legend Below):

00 22 23 50 51

497-19-8 Carbonic acid disodium salt

### EXPOSURE LIMITS

PEL:Not Established  
TLV:Not Established

### PERCENTAGE

VOL ND  
WT 0.40-1

### COMMON NAMES:

SODA ASH  
SODIUM CARBONATE

Listed On(List Legend Below):

00 22 23 50 51

### LIST LEGEND

00 TSCA INVENTORY	13 PA ENVIROMENTAL HAZ SUBSTANCE
18 NY HAZARDOUS SUBSTANCES	21 NJ SPECIAL HEALTH HAZ SUB
22 CANADIAN DOMESTIC SUB LIST	23 NJ REQUIREMENT- 1% OR GREATER
50 PHILIPPINES INVENTORY (PICCS)	51 EINECS

## 3. HAZARDS IDENTIFICATION

\*\*\*\*\* EMERGENCY OVERVIEW \*\*\*\*\*

\* MAY CAUSE BURNS TO THE EYES, SKIN, AND MUCOUS MEMBRANES. MAY  
\* CAUSE PERMANENT EYE DAMAGE. INHALATION OF DUST, MIST, OR SPRAY  
\* CAN CAUSE SEVERE LUNG DAMAGE. CAN REACT VIOLENTLY WITH WATER,  
\* ACIDS AND OTHER SUBSTANCES.

\* Clear white solid with no distinct odor

\*\*\*\*\*

### POTENTIAL HEALTH EFFECTS

#### ROUTES OF ENTRY:

Inhalation, Ingestion.

#### TARGET ORGANS:

Eyes, Skin, Respiratory Tract, Gastrointestinal Tract.

ACCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 3 OF 18  
01-01-98

### 3. HAZARDS IDENTIFICATION (Continued)

---

**IRRITANCY:**

Liquid, vapors or mist may be irritating to eyes, skin and respiratory tract.

**SENSITIZING CAPABILITY:**

None known.

**REPRODUCTIVE EFFECTS:**

None known.

**CANCER INFORMATION:**

None known.

#### SHORT-TERM EXPOSURE (ACUTE)

**INHALATION:**

Exposure to vapor, mist or liquid can produce burns of the respiratory tract.

Severe exposures could result in chemical pneumonia.

**EYES:**

Contact can cause severe damage including burns and blindness.

The severity of the effects depend on concentration and how soon after exposure the eyes are washed.

**SKIN:**

Corrosive.

Contact may cause burns and tissue destruction.

Note that irritation may follow an initial latency (delay between the time that the exposure occurs and when the sense of irritation starts). The latent period can vary as much as hours for a dilute solution (0.04%) to minutes with more concentrated solutions (25-50%).

Prolonged or repeated contact, even to dilute concentrations, can cause a high degree of tissue destruction.

**INGESTION:**

Corrosive.

Severe burns and complete tissue perforation of mucous membranes of mouth, throat and stomach.

**REPEATED EXPOSURE (CHRONIC)**

No known chronic effects.

**SYNERGISTIC MATERIALS:**

None known.

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SOD. ANHYDROUS (ALL GRADES)

PAGE 4 OF 18  
01-01-98

---

### 3. HAZARDS IDENTIFICATION (Continued)

---

#### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known.

Revised

---

### 4. FIRST AID MEASURES

---

#### EYES:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

#### SKIN:

Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

#### INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY.

#### INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

#### NOTES TO PHYSICIAN:

No specialized procedures. Treat for clinical symptoms.

---

### 5. FIRE FIGHTING MEASURES

---

Flash Point: Non-flammable

Method: Not applicable

Autoignition Temperature: Nonflammable

#### FLAMMABLE LIMITS IN AIR BY % VOLUME

Upper: Not applicable

Lower: Not applicable

#### EXTINGUISHING MEDIA:

Non-flammable / Non-combustible.

OCCIDENTAL CHEMICAL CORPORATION

MSDS NUMBER : M32413

PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 5 OF 18

01-01-98

---

## 5. FIRE FIGHTING MEASURES (Continued)

---

Use water spray to keep fire-exposed containers cool.

### FIRE FIGHTING PROCEDURES:

Use water to cool containers but avoid getting water into containers. Wear NIOSH/MSHA approved positive-pressure self-contained breathing apparatus and full protective clothing.

### FIRE AND EXPLOSION HAZARD:

Direct contact with water can cause a violent exothermic reaction.

### SENSITIVITY TO MECHANICAL IMPACT:

Not sensitive.

### SENSITIVITY TO STATIC DISCHARGE:

Not sensitive.

---

## 6. ACCIDENTAL RELEASE MEASURES

---

### PERSONAL PRECAUTIONS:

Evacuate unnecessary personnel.

Follow protective measures provided under Personal Protection in Section 8.

### ENVIRONMENTAL PRECAUTIONS:

Contain material and prevent accumulation of dust.

CAUTION: This product may react strongly with acids and water.

NEVER FLUSH TO SEWER.

According to 40 CFR 302 Table 302.4 (CERCLA), environmental releases that exceed the RQ must be reported to the National Response Center by calling 800-424-8802 (202-426-2675) and the State Emergency Response Commission and the Local Emergency Planning Committee (40 CFR 355.40) as appropriate.

### METHODS FOR CLEANING UP:

Dry material can be shoveled up, liquid material can be removed with a vacuum truck. Neutralize remaining traces with any dilute inorganic acid (hydrochloric, sulfuric or acetic acid). Flush spill area with water followed by a liberal covering of sodium carbonate. All clean-up material should be removed for proper treatment or disposal. Spills on other than pavement (eg. dirt or sand) may be handled by removing the affected soil and placing in approved containers.

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 6 OF 18  
01-01-98

## 7. HANDLING AND STORAGE

### HANDLING:

Avoid breathing dust.

Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures (ANSI Z117.1).

Containers, even those that have been emptied, will retain product residue and vapor and should be handled as if they were full.

Do not get in eyes, on skin or clothing.

Do not take internally

Keep away from acids, to avoid possible violent reaction.

Wash contaminated clothing before reuse.

Wash thoroughly after handling; exposure can cause burns which are not immediately painful or visible.

Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the MSDS.

If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

### SPECIAL MIXING AND HANDLING INSTRUCTIONS:

Considerable heat is generated when product is mixed with water. Therefore, when making solutions always carefully follow these steps:

ALWAYS wear ALL protective clothing described above. NEVER add water to product. ALWAYS add product, with constant stirring, slowly to surface of lukewarm (80-100°F) water, to assure product is being completely dissolved as it is added.

Product can react EXPLOSIVELY with acids, aldehydes, and many other organic chemicals, add product VERY gradually, while stirring constantly. If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

ALWAYS empty and clean containers of all residues before adding product, to avoid possible EXPLOSIVE reaction between product and unknown residue.

Returnable containers should be shipped in accordance with supplier's recommendations. Return shipments should comply with all federal, state, and DOT regulations. All residue should be removed from containers prior to disposal.

Avoid contact with aluminum, tin, zinc, and alloys containing these metals. Avoid contact with leather, wool, acids, organic halogen compounds and organic nitro compounds.

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 7 OF 18  
01-01-98

---

## 7. HANDLING AND STORAGE (Continued)

---

### STORAGE:

Keep container tightly closed and properly labeled.

Keep container closed except when transferring material.

Store in a cool, ventilated area away from incompatible materials (see Section 10).

Hazardous carbon monoxide gas can form upon contact with reducing sugars and food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures (ANSI Z117.1).

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

### ENGINEERING CONTROLS:

No special ventilation required under normal use.

NOTE: Where carbon monoxide may be generated, special ventilation may be required.

Where engineering controls are not feasible use adequate local exhaust ventilation wherever mist, spray or vapor may be generated.

### PERSONAL PROTECTION

#### RESPIRATORY:

Respiratory protection is not required under normal use.

Wear a NIOSH/MSHA approved respirator following manufacturer's recommendations, where airborne contaminants may occur.

#### EYE/FACE:

Wear chemical safety goggles. (ANSI Z87.1)

#### SKIN:

Wear chemical resistant gloves such as rubber, neoprene or vinyl.

Wash contaminated clothing and dry before reuse.

Wear protective clothing to minimize skin contact.

#### OTHER:

Standard work clothing closed at the neck and wrists.

Discard shoes that cannot be decontaminated.

Emergency shower and eyewash facility should be in close proximity (ANSI Z358.1).

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 8 OF 18  
01-01-98

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Clear white solid with no distinct odor

Odor Threshold: Not applicable

Specific Gravity (Water=1): 2.13 @ 20°C

Vapor Pressure: 42mm Hg @ 1000°C

Vapor Density (Air=1): Not Applicable

Density: Not available

Evaporation Rate: Not applicable

% Volatiles by Wt: 0

Boiling Point: 1388°C @ 760 mm Hg

Freezing Point: 318°C

Melting Point: Not available

Solubility in Water (% by wt.): Completely soluble

pH: 0.01 moles/liter has pH 12.0

Octanol/Water Partition Coefficient: Not available

Thermal Decomposition Temperature: Not available

Other: COEFFICIENT WATER/OIL DISTRIBUTION: Not determined

VOC (g/l. by wt.): 0

## 10. STABILITY AND REACTIVITY

### CHEMICAL STABILITY:

  X   STABLE        UNSTABLE

### REACTS WITH:

<u>  X  </u> AIR	<u>      </u> OXIDIZERS	<u>  X  </u> METALS
<u>  X  </u> WATER	<u>  X  </u> ACIDS	<u>  X  </u> OTHER
<u>      </u> HEAT	<u>      </u> ALKALIS	<u>      </u> NONE

### HAZARDOUS POLYMERIZATION:

       OCCURS   X   WILL NOT OCCUR

### COMMENTS:

Avoid direct contact with water.

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 9 OF 18  
01-01-98

---

## 10. STABILITY AND REACTIVITY (Continued)

---

Product is corrosive to tin, aluminum, zinc and alloys containing these metals and will react with these metals in powder form. Avoid contact with leather, wool, acids, organic halogen compounds, or organic nitro compounds. Hazardous carbon monoxide gas can form upon contact with reducing sugars, food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures.

See Handling and Storage (Section 7).

### HAZARDOUS DECOMPOSITION PRODUCTS:

None.

---

## 11. TOXICOLOGICAL INFORMATION

---

### 1310-73-2 Sodium hydroxide (Na(OH))

ACUTE DERMAL LD50 :	(rabbit)	1350 mg/kg
PRIMARY SKIN IRRITATION :	(rabbit)	severe
PRIMARY EYE IRRITATION :	(rabbit)	severe

### 497-19-8 Carbonic acid disodium salt

ACUTE ORAL LD50 :	(rat)	4090 mg/kg
ACUTE INHALATION LC50 :	(rat, 2hr)	2300 mg/m3
PRIMARY SKIN IRRITATION :	(rabbit, 24hr)	mild
PRIMARY EYE IRRITATION :	(rabbit, 24hr)	moderate

### 7647-14-5 Sodium chloride (NaCl)

ACUTE ORAL LD50 :	(rat)	3000 mg/kg
PRIMARY SKIN IRRITATION :	(rabbit)	mild
PRIMARY EYE IRRITATION :	(rabbit)	moderate



OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 10 OF 18  
01-01-98

## 12. ECOLOGICAL INFORMATION

### 1310-73-2 Sodium hydroxide (Na(OH))

#### AQUATIC ECOTOX DATA

##### Fish:

LC50 (24 hr.)	(Goldfish)	160	mg/L
---------------	------------	-----	------

LC50 (48 hr.)	(Bluegill sunfish)	99	mg/L
---------------	--------------------	----	------

LC50 (96 hr.)	(Mosquito fish)	125	mg/L
---------------	-----------------	-----	------

LC100 (24 hr.)	(Carp)	180	mg/L
----------------	--------	-----	------

NOEC (168 hr.)	(Goldfish, Bass)	50	mg/L
----------------	------------------	----	------

##### Invertebrates:

Lethal (48 hr.)	(Water flea)	100	mg/L
-----------------	--------------	-----	------

Lethal (48 hr.)	(Midge)	700	mg/L
-----------------	---------	-----	------

##### Amphibians:

No data available

##### Plants:

No data available

#### TERRESTRIAL ECOTOX DATA

##### Wildlife:

LD50 (interperitoneal)	(Mouse as surrogate)	40	mg/Kg
------------------------	----------------------	----	-------

LDLo (Oral)	(Rabbit as surrogate)	500	mg/Kg
-------------	-----------------------	-----	-------

##### Plants:

No data available

#### ENVIRONMENTAL FATE DATA

##### Biotic:

BOD NaOH has no biological oxygen demand

##### Abiotic:

No data available

There is limited information available on the environmental fate and effects of sodium hydroxide (NaOH). Laboratory toxicity data indicate that NaOH is moderately toxic to aquatic and terrestrial organisms. The primary mode of action is due the corrosive nature of this chemical and its tendency to increase pH in poorly buffered environments. Aquatic organisms become increasingly stressed as pH exceeds 9, with many aquatic species being intolerant of pH levels in excess of 10. Increased pH due to the introduction of NaOH into aquatic environments may lead to the precipitation of essential micronutrients. Exposed terrestrial species would be subject to skin irritation and burns due to the corrosive nature of this material. Due caution should be exercised to prevent the accidental release of this material to aquatic or terrestrial environments.

### 7647-14-5 Sodium chloride (NaCl)

#### AQUATIC ECOTOX DATA

##### Fish:

LC50 (96 hr.)	(Fathead minnow)	7,650	mg/L
---------------	------------------	-------	------

LC50 (96 hr.)	(Bluegill sunfish)	12,946	mg/L
---------------	--------------------	--------	------

OCCIDENTAL CHEMICAL CORPORATION

MSDS NUMBER : M32413

PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 11 OF 18

01-01-98

---

12. ECOLOGICAL INFORMATION (Continued)

---

## Invertebrates:

LC50 (48 hr.)	(Water flea)	3,310	mg/L
LC50 (48 hr.)	(Mosquito larva)	10,200	mg/L
EC50 (48 hr.)	(Pond snail)	3,388	mg/L
LC50 (7 day)	(Water flea)	1,770	mg/L*
*mean value for five laboratory tests			
IC50Repro (7 day)	(Water flea)	1,340	mg/L*
*mean value for five laboratory tests			

## Amphibians:

Mortality (5 day)	(Frog)	46.66% @ 1,800	mg/L*
		(* concentration as Cl)	
Mortality (5 day)	(Frog)	46.66% @ 1,200	mg/L*
		(* concentration as Na)	

## Plants:

EC50 (32 day)	(Water-milfoil)	5,962-8,183	mg/L
---------------	-----------------	-------------	------

## TERRESTRIAL ECOTOX DATA

## Wildlife:

LD50 (oral)	(Rat as surrogate)	3,000	mg/Kg
-------------	--------------------	-------	-------

## Plants:

No data available

## ENVIRONMENTAL FATE DATA

Sodium chloride (NaCl) is a naturally occurring inorganic salt in surface waters, groundwater and the earth's crust. Biological systems typically maintain a necessary osmotic balance of critical salts including sodium chloride. The tolerance of aquatic species to NaCl is variable depending upon whether the organism is freshwater or marine, or if the organism is capable of moving between freshwater and marine environments. In general NaCl has low to moderate toxicity to aquatic or terrestrial species. Continuous discharge of salt to freshwater environments can lead to increased salinity over time. Bulk releases could impact salt intolerant aquatic species and sessile terrestrial lifeforms. Due care should be taken to avoid the accidental release of this material to aquatic or terrestrial environments.

## 497-19-8 Carbonic acid disodium salt

## AQUATIC ECOTOX DATA

## Fish:

LC50 (96 hr.)	(Bluegill sunfish)	140-180	mg/L
LC50 (96 hr.)	(Mosquitofish)	320-420	mg/L

BCF No data available

## Invertebrates:

LC50 (48 hr.)	(Water flea)	115-320	mg/L
LC50 (96 hr.)	(Scud)	28-38	mg/L
LC50 (96 hr.)	(Tubellarian flatworm)	148-193	mg/L

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 12 OF 18.  
01-01-98

---

## 12. ECOLOGICAL INFORMATION (Continued)

---

### Amphibians:

No data available

### Plants:

LC50 (5 day) (Diatom) 105-137 mg/L

### TERRESTRIAL ECOTOX DATA

#### Wildlife:

LD50 (oral) (Rat as surrogate) 2.88 g/Kg

### Plants:

No data available

### ENVIRONMENTAL FATE DATA

There is limited information available on the environmental fate and effects of sodium carbonate (carbonic acid, disodium salt). Limited laboratory toxicity test data indicate that it is moderately toxic to aquatic and terrestrial organisms. Sodium carbonate ( $\text{Na}_2\text{CO}_3$ ) is a contributor to water hardness, and is a component of the buffering capacity of aquatic systems. This material will readily dissociate in water, where the equilibrium distribution of inorganic carbon ( $\text{CO}_2$ ,  $\text{HCO}_3^-$ , and  $\text{CO}_3^{2-}$ ) is based on pH. Due caution should be exercised to avoid the accidental release of this material to aquatic or terrestrial environments.

---

## 13. DISPOSAL CONSIDERATIONS

---

Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts.

Dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Ensure that all responsible federal, state, and local agencies receive proper notification of spill and disposal methods.

Shipments of waste materials may be subject to manifesting requirements per applicable regulations. Appropriate disposal will depend on the nature of each waste material and should be done by a competent and properly permitted contractor.

The materials resulting from clean-up operations may be hazardous wastes and, therefore, subject to specific regulations. Package, store, transport, and dispose of all (clean-up) materials and any contaminated equipment in accordance with all applicable federal, state, and local regulations.

---

## 14. TRANSPORT INFORMATION

---

DOT PROPER SHIPPING NAME: Sodium Hydroxide, Solid

DOT HAZARD CLASS: 8

OCCIDENTAL CHEMICAL CORPORATION

PAGE 13 OF 18

MSDS NUMBER : M32413

01-01-98

PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

---

**14. TRANSPORT INFORMATION (Continued)**

---

DOT IDENTIFICATION NO: UN1823

DOT PACKING GROUP: II

DOT HAZARDOUS SUBSTANCE: RQ 1,000 Lbs. (Sodium Hydroxide)

DOT MARINE POLLUTANT(S): Not Applicable

ADDITIONAL DESCRIPTION REQUIREMENT: Not Applicable

---

**15. REGULATORY INFORMATION**

---

**U.S. FEDERAL REGULATIONS:**

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

To aid our customers in complying with regulatory requirements, SARA Title III Hazard Categories for this product are indicated below. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40.CFR.370. Please consult those regulations for details.

**TSCA:**

All components of this product that are required to be on the TSCA inventory are listed on the inventory.

**SARA/TITLE III HAZARD CATEGORIES:**

Immediate(Acute) Health:	<u>YES</u>	Reactive Hazard	<u>YES</u>
Delayed(Chronic) Health:	<u>NO</u>	Sudden Release of Pressure	<u>NO</u>
Fire Hazard:	<u>NO</u>		

**HMIS HAZARD RATINGS:**

HEALTH HAZARD: 3 FIRE HAZARD: 0 REACTIVITY: 2

**STATE REGULATIONS:**

See Section 2. COMPOSITION/INFORMATION ON INGREDIENTS list legend for applicable state regulation.

**INTERNATIONAL REGULATIONS:**

Consult the regulations of the importing country.

**CANADA:**

WHMIS Hazard Class: D1B, E

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 14 OF 18  
01-01-98

## 16. OTHER INFORMATION

For additional non-emergency health, safety or environmental information telephone (972) 404-2405 or write to:

Occidental Chemical Corporation  
Product Stewardship Department  
5005 LBJ Freeway  
P.O. Box 809051  
Dallas, Texas 75380

### MSDS LEGEND:

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstracts Service Registry Number

CEILING = Ceiling Limit (15 Minutes)

CEL = Corporate Exposure Limit

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit (OSHA)

STEL = Short Term Exposure Limit (15 Minutes)

TDG = Transportation of Dangerous Goods (Canada)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average (8 Hours)

WHMIS = Worker Hazardous Materials Information System (Canada)

\* = See Section 3 Hazards Identification - Repeated Exposure (Chronic) Information

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, STABILITY OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state or local laws, rules, regulations or ordinances.

This Material Safety Data Sheet (MSDS) covers the following materials:

- DIAPHRAGM NO. 2 FLAKE
- BEADS
- SOLID
- CAUSTIC SODA-DIAPHRAGM COMPOUNDER
- CAUSTIC SODA RAYON NO. 2 FLAKE
- CAUSTIC SODA RAYON NO. 4 FLAKE
- CAUSTIC SODA-SOLID
- CAUSTIC SODA-DIAPHRAGM NO. 2 FLAKE

- OCCIDENTAL CHEMICAL CORPORATION

PAGE 15 OF 18

MSDS NUMBER : M32413

01-01-98

PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

---

**16. OTHER INFORMATION (Continued)**

---

- CAUSTIC SODA-BEADS
  - CAUSTIC SODA- DIAPHRAGM NO. 4 FLAKE
- 

Revised

**17. WARNING LABEL INFORMATION**

---

**SIGNAL WORD:**

DANGER

**HAZARD WARNINGS:**

MAY CAUSE BURNS TO THE EYES, SKIN, AND MUCOUS MEMBRANES.

MAY CAUSE PERMANENT EYE DAMAGE.

INHALATION OF DUST, MIST, OR SPRAY CAN CAUSE SEVERE LUNG DAMAGE.

CAN REACT VIOLENTLY WITH WATER, ACIDS AND OTHER SUBSTANCES.

**PRECAUTIONS:**

Avoid contact with eyes, skin and clothing.

Avoid breathing dust, vapors or mist.

Do not swallow.

Use with adequate ventilation and wear respiratory protection when exposure to dust, mist, or spray is possible.

Wear safety glasses with side shields or chemical splash goggles, protective clothing and chemical resistant gloves.

Wash thoroughly after handling; exposure can cause burns which are not immediately painful or visible.

Keep container tightly closed and properly labeled.

Product can react violently with water, acids and other substances. See Handling and Storage (Section 7) of the MSDS for instructions before using.

Avoid contact with aluminum, tin, zinc, and alloys containing these metals. Avoid contact with leather, wool, acids, organic halogen compounds and organic nitro compounds.

Hazardous carbon monoxide gas can form upon contact with food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures (ANSI Z117.1).

OCCIDENTAL CHEMICAL CORPORATION  
MSDS NUMBER : M32413  
PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 16 OF 18.  
01-01-98

## 17. WARNING LABEL INFORMATION (Continued)

### FIRST AID

#### EYES:

IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

#### SKIN:

Flush thoroughly with cool water under shower while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.

#### INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY.

#### INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

#### IN CASE OF SPILL OR LEAK:

Leaks should be stopped.

CAUTION: This product may react strongly with acids and water.

Scoop or sweep up all spilled product and other contaminated material and place in marked disposal containers

Neutralize residue with dilute acid and flush spill area with water followed by a liberal covering of sodium carbonate.

Dispose of wash water and spill by-products according to federal, state and local regulations.

Spills of 1000 pounds or more must be reported to the National Response Center, 1-800-424-8802.

State and local regulations may have additional reporting requirements, check with the proper state and local authorities.

Wear neoprene or rubber gloves.

#### FIRE:

Material does not burn.

Use extinguishing medium as appropriate for surrounding fire.

OCCIDENTAL CHEMICAL CORPORATION

MSDS NUMBER : M32413

PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 17 OF 18

01-01-98

---

**17. WARNING LABEL INFORMATION (Continued)**

---

**HANDLING AND STORAGE:**

Considerable heat is generated when product is mixed with water. Therefore, when making solutions always carefully follow these steps:

ALWAYS wear ALL protective clothing described above. NEVER add water to product. ALWAYS add product, with constant stirring, slowly to surface of lukewarm (80-100°F) water, to assure product is being completely dissolved as it is added.

Product can react EXPLOSIVELY with acids, aldehydes, and many other organic chemicals, add product VERY gradually, while stirring constantly. If product is added too rapidly, or without stirring, and becomes concentrated at bottom of mixing vessel, excessive heat may be generated, resulting in DANGEROUS boiling and spattering, and a possible IMMEDIATE AND VIOLENT ERUPTION of highly caustic solution.

ALWAYS empty and clean containers of all residues before adding product, to avoid possible EXPLOSIVE reaction between product and unknown residue.

Returnable containers should be shipped in accordance with supplier's recommendations. Return shipments should comply with all federal, state, and DOT regulations. All residue should be removed from containers prior to disposal.

Containers that have been emptied, will retain product residue and vapor and should be handled as if they were full.

**DISPOSAL:**

A spill or release of this material may trigger the emergency release reporting requirements under SARA, Title III (40 CFR, Part 355) and/or CERCLA (40 CFR, Part 300). State or local reporting requirements may differ from federal requirements. Consult counsel for further guidance on your responsibilities under these laws.

Material that cannot be reused or chemically reprocessed should be disposed of in a manner meeting government regulations.

Always package, store, transport and dispose of all waste and contaminated equipment in accordance with all applicable federal, state and local health and environmental regulations.

Appropriate disposal will depend on the nature of each waste material and should be done by a competent and properly permitted contractor.

**INFORMATION REQUIRED BY FEDERAL, STATE OR LOCAL REGULATIONS:****This Product Contains:**

CAS#	NAME
1310-73-2	Sodium hydroxide (Na(OH))
7647-14-5	Sodium chloride (NaCl)
497-19-8	Carbonic acid disodium salt

HMIS RATING: HEALTH 3 FLAMMABILITY 0 REACTIVITY 2



OCCIDENTAL CHEMICAL CORPORATION

MSDS NUMBER : M32413

PRODUCT NAME : CAUSTIC SODA ANHYDROUS (ALL GRADES)

PAGE 18 OF 18

01-01-98

---

17. WARNING LABEL INFORMATION (Continued)

---

LABEL NUMBER: 0198M32413

For Industrial Use Only

**APPENDIX K**

**DECEMBER 1994 STEELE BROOK/NAUGATUCK RIVER  
SEDIMENT SAMPLING RESULTS**

# HRP

ASSOCIATES, INC.

December 20, 1994

**CERTIFIED MAIL**

Ms. Michelle DiNoia  
Bureau of Water Management  
Department of Environmental Protection  
79 Elm Street  
Hartford, Connecticut 06106

RE: RESULTS OF SEDIMENT SAMPLES COLLECTED FROM THE STEELE BROOK  
AND NAUGATUCK RIVER FOLLOWING THE CLEAN-UP OF SPILLED COPPER  
ETCHANT SOLUTION, MacDERMID, INC., 526 HUNTINGDON AVENUE,  
WATERBURY, CONNECTICUT (HRP #MAC-0013.RC)

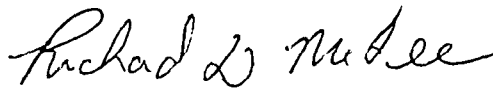
Dear Ms. DiNoia:

Enclosed for your review is a copy of the report entitled "Steele Brook/Naugatuck River Sediment Sampling Results" dated December 1994. As indicated on page 1 of this report, the sediment sampling activities were conducted in accordance with the telephone conversation we had on November 15, 1994.

If you have any questions, please contact me at (203) 793-6899.

Sincerely,

HRP ASSOCIATES, INC.



Richard D. McFee, P.E.  
Associate

RDM/cpk  
Enclosure  
cc: Cherrie Gillis, MacDermid, Inc.

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

**3. Article Addressed to:**

Ms. Michelle DiNoia  
CT DEP/Bureau of Water Mngt  
79 Elm Street  
Hartford, CT 06106

**4a. Article Number**

Z 100 570 280

**4b. Service Type**

- |   |  |
|---|--|
| <input type="checkbox"/> Registered           | <input type="checkbox"/> Insured                                   |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD                                       |
| <input type="checkbox"/> Express Mail         | <input checked="" type="checkbox"/> Return Receipt for Merchandise |

**7. Date of Delivery**

DEC 7 1991

**5. Signature (Addressee)**

**6. Signature (Agent)**

*Michelle DiNoia*

**8. Addressee's Address (Only if requested and fee is paid)**

PS Form 3811, December 1991

U.S. POST 1993-352-714

**DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

**STEELE BROOK/NAUGATUCK RIVER  
SEDIMENT SAMPLING RESULTS**

**MACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CONNECTICUT 06720**

**HRP #MAC-0013.RC**

**DECEMBER 1994**

**Prepared By:**

**David T. Faist  
Project Engineer**

**Richard D. McFee, P.E.  
Associate**

**Submitted To:**

**Ms. Cherrie Gillis  
MacDermid, Inc.  
245 Freight Street  
Waterbury, Connecticut 06702**

**Submitted By:**

**HRP Associates, Inc.  
Engineering & Geology  
167 New Britain Avenue  
Plainville, Connecticut 06062**

## TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
1.0	INTRODUCTION . . . . .	1
2.0	SAMPLING OF STEELE BROOK AND NAUGATUCK RIVER . . . . .	3
2.1	Sampling Activities . . . . .	3
2.2	Sediment Sampling Results . . . . .	9

## LIST OF FIGURES

1	Site Location . . . . .	2
2	Steel Brook/Naugatuck River Sediment Sampling Locations . . . . .	4

## LIST OF TABLES

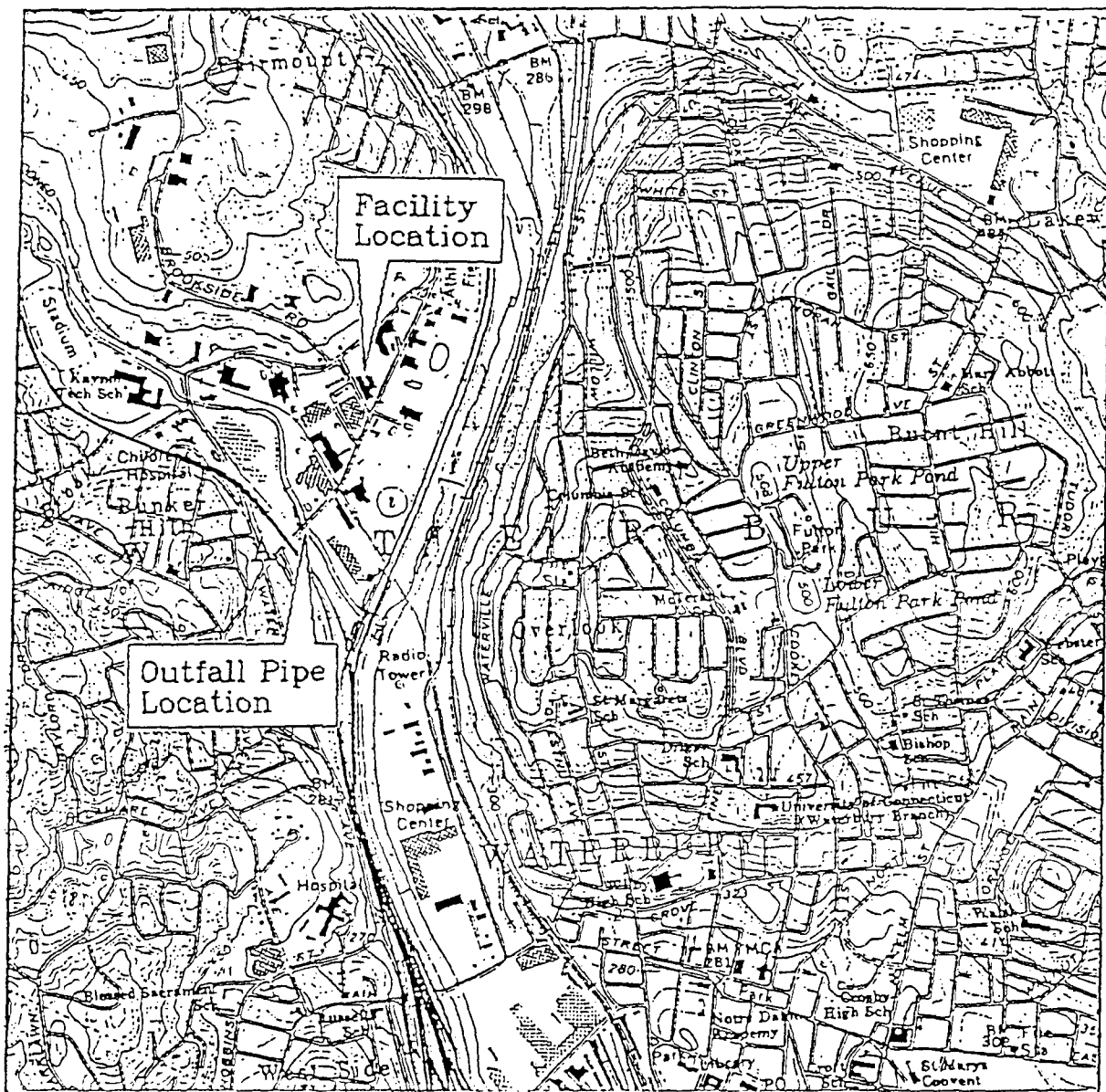
1	Steele Brook/Naugatuck River Sediment Sampling Results . . . . .	10
---	--	----

## APPENDICES

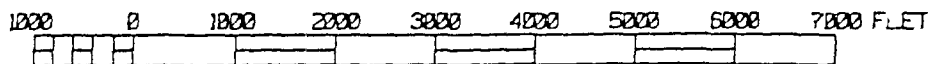
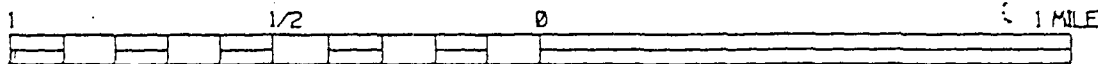
A	LABORATORY RESULTS FROM STEELE BROOK/NAUGATUCK RIVER SEDIMENT SAMPLING	
---	---	--

## 1.0 INTRODUCTION

This report details the brook and river sediment sampling activities and results of samples collected from Steele Brook and the Naugatuck River in Waterbury, CT by HRP Associates on November 18 and 23, 1994. HRP's sediment sampling activities were performed in accordance with the conversation with Ms. Michelle DiNoia of the Connecticut D.E.P. on November 15, 1994 regarding the spill of approximately 1500 gallons of copper etchant to the Steele Brook. Figure 1 illustrates the location of the MacDermid plant located at 526 Huntingdon Avenue and the outfall location of the stormwater system which received the spilled copper etchant solution.



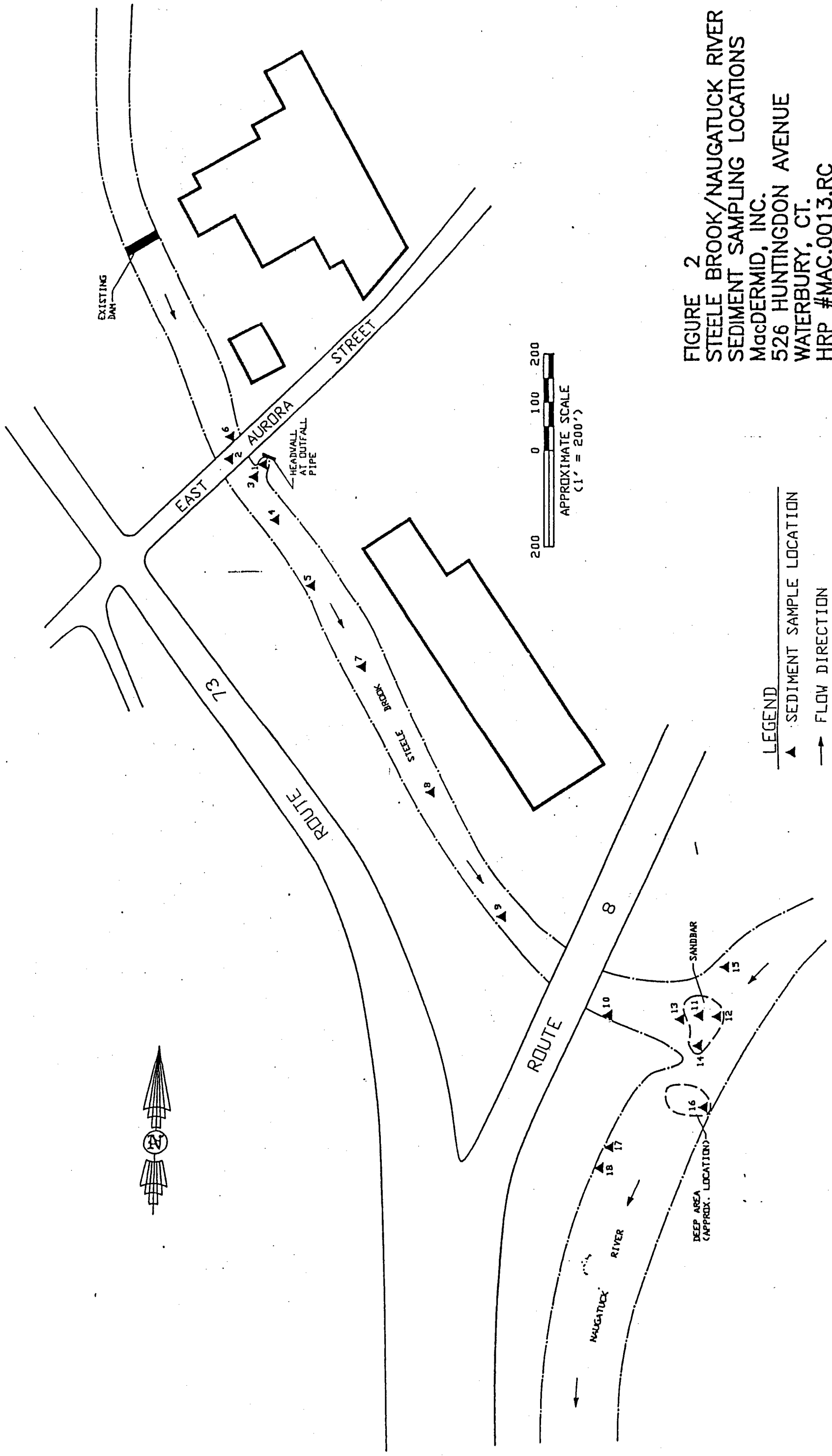
SCALE 1 : 24,000



CONTOUR INTERVAL 10 FEET

FIGURE 1  
SITE LOCATION  
MACDERMID, INC.  
528 HUNTERDON AVENUE  
WATERBURY, CONNECTICUT  
UPD# MAC0013 RC





**LEGEND**  
 ▲ SEDIMENT SAMPLE LOCATION  
 → FLOW DIRECTION

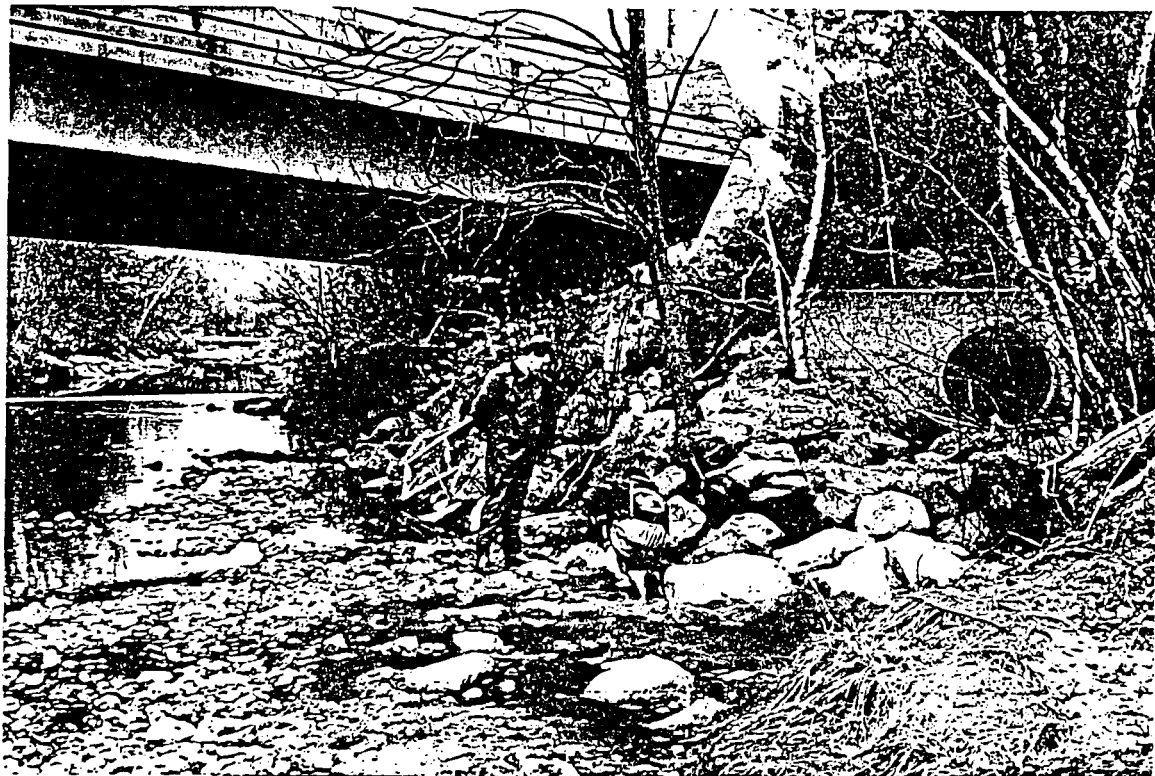
**FIGURE 2**  
**STEELE BROOK/NAUGATUCK RIVER**  
**SEDIMENT SAMPLING LOCATIONS**  
 MacDERMID, INC.  
 526 HUNTINGDON AVENUE  
 WATERBURY, CT.  
 HRP #MAC.0013.RC

E:\MARK\MAC013RC

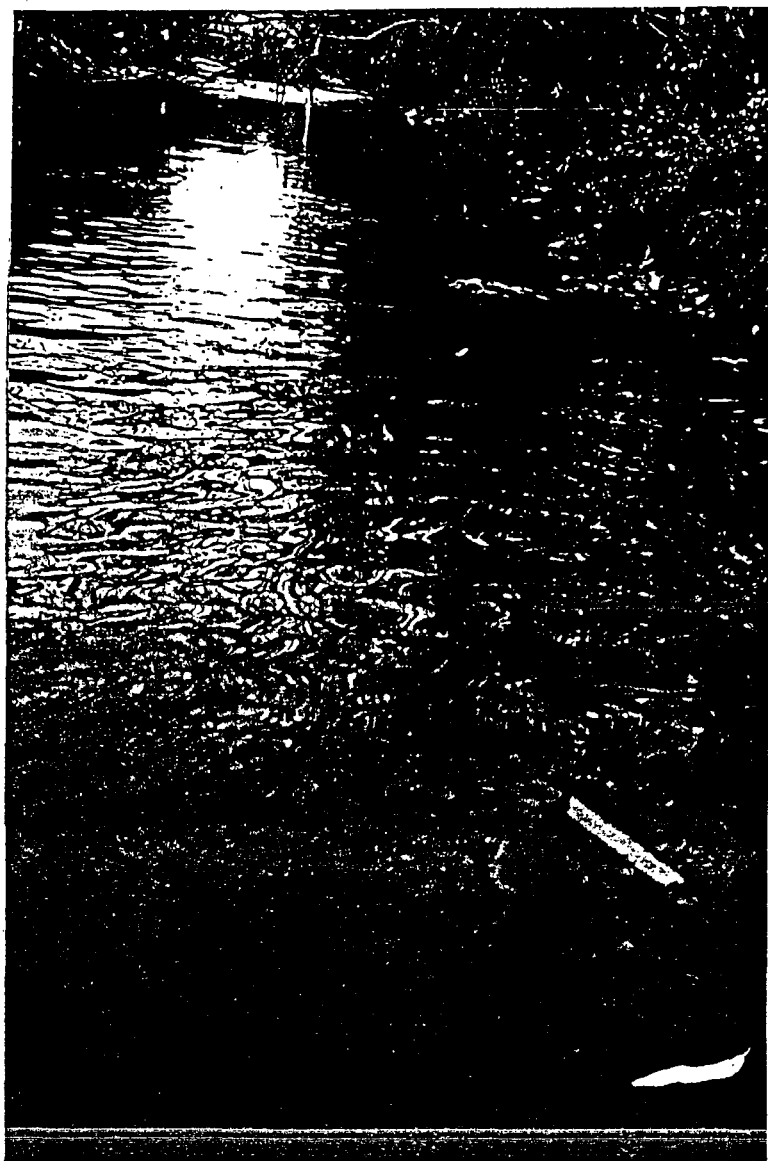
location #3. From the hook shaped sand bar located where Steele Brook and the Naugatuck River meet a total of four sediment samples (#11-#14) were collected. Sample #11 was collected from the top of the sandbar, sample #12 was collected on the eastern side of the sandbar, sample #13 was collected from the bottom of the pool before the sandbar, and sample #14 was collected on the southern side (i.e. downriver side of the sandbar). Sample #15, a background sample, was collected in the Naugatuck River to the north of Steele Brook's intersection with the Naugatuck River.

The following three pages show photographs of Steele Brook and its intersection with the Naugatuck River taken on November 18, 1994 during the first day of sampling activities.

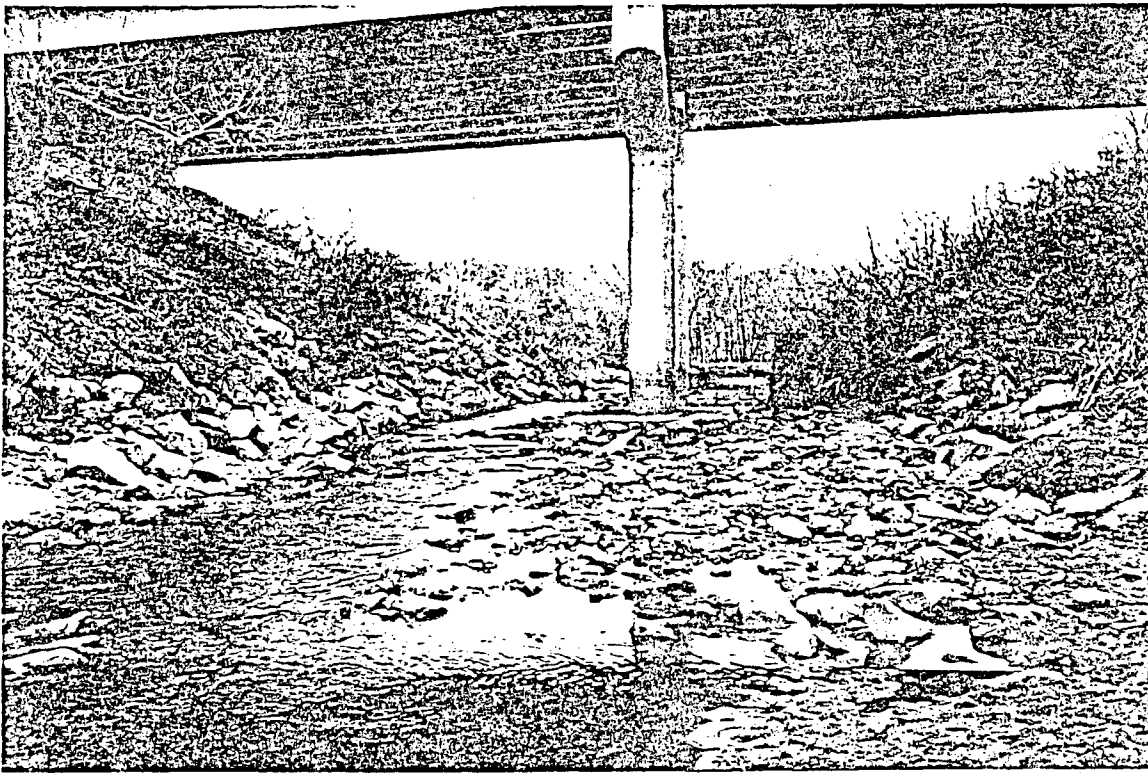
On November 23, 1994 David Faist and John Goodno of HRP Associates were on-site to complete sampling of the deep pool area and downstream sampling in the Naugatuck River. A flat bottomed rowboat was used to move around in the Naugatuck River and a 10 ft. long stainless steel hand auger was used to collect sediment samples as well as probe for depth measurements. In order to identify the deep pool area, HRP moved downstream from side to side, measuring the depth to the bottom. After rowing downstream approximately 650 ft. from the Steele Brook intersection, the deepest area was found to be 100 feet downstream to the south of the hook shaped sandbar. This deep area (as shown on Figure 2) was assumed to be the deep pool area mentioned by the CT-DEP. The description of the deep pool given by the CT-DEP



Sampling location #1 at outfall pipe to Steele Brook



Sampling location #8 looking upstream at Steele Brook



Sample location #9 looking downstream of Steele Brook at Route 8 overpass



Looking downstream of Steele Brook at intersection of Naugatuck River

referenced only a deep pool located downstream of the Steele Brook intersection with a large piece of machinery or car located below the water's surface in this area. Our site investigation revealed no discarded large machinery in the river or deeper location in the 650 ft. stretch of river below the Steele Brook intersection. Therefore sample #16 was collected from the deep pool identified above. Samples #17 and #18 were both collected downstream 150 ft. and 200 ft., respectively, from the identified deep pool.

## 2.2 Sediment Sampling Results

All of the sediment samples collected on November 18 and 23, 1993 were submitted to a State of Connecticut certified laboratory for analysis of copper, lead, nickel, and zinc by mass analysis. These results are presented on Table 1. Copies of the laboratory reports are provided in Appendix A.

TABLE 1

## STEELE BROOK/NAUGATUCK RIVER SEDIMENT SAMPLING RESULTS

MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, Connecticut

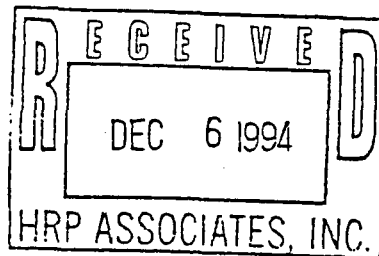
Sample Location	Sampling Parameters			
	Copper (mg/kg)	Nickel (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)
1	1,290	22.6	69.0	195
2	45.4	10.0	16.0	76.0
3	441	9.3	12.7	90.1
4	117	8.7	16.2	64.7
5	128	21.8	36.5	74.5
6	141	15.3	15.8	92.1
7	81.7	18.7	12.2	62.1
8	58.9	7.3	11.4	50.0
9	168	9.8	13.2	55.6
10	105	10.4	10.6	46.8
11	106	12.3	17.9	59.6
12	50.6	8.2	17.8	43.7
13	45.8	12.3	11.8	50.0
14	57.6	10.3	13.6	48.8
15	32.8	10.6	97.0	225
16	35.6	16.9	27.9	90.2
17	80.8	15.3	24.4	48.4
18	170	9.5	25.7	92.4

**APPENDIX A**

**LABORATORY RESULTS FROM STEELE BROOK/NAUGATUCK  
RIVER SEDIMENT SAMPLING**



December 5, 1994



HRP Associates Inc.  
167 New Britain Ave  
Plainville, CT 06062

Attn: Ms. Pat Terwilliger

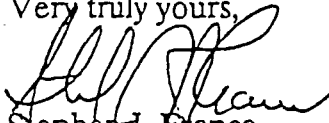
Please find attached laboratory report(s) for the samples submitted on :  
November 18, 1994

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No. : 114-376-15  
PO/JOB No. : MAC0013.RC  
INVOICE No. : 48141  
ORDER No. : 28070  
CUSTOMER No.: 350

Please feel free to contact us if you have any questions.

Very truly yours,

  
Stephen J. Franco  
Laboratory Director  
PH-0547



STEPHEN J. FRANCO  
Laboratory Director  
PHONE ■ 203/634-3731  
165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451

Date Samples Received : 11-18-94

Client Name: HRP Associates Inc.  
Report Date: 12-5-94

CTL Lab No. 114-376-15  
PO/Job No. MAC0013.RC

RESULTS OF ANALYSIS

## Mass Analysis EPA 3050A

Matrix Type	S	S	S	S
CTL Sample No.	14423	14424	14425	14426
Field ID	#1	#2	#3	#4
Copper-mg/kg	1,290	45.4	441	117
Nickel-mg/kg	22.6	10.0	9.3	8.7
Lead-mg/kg	69.0	16.0	12.7	16.2
Zinc-mg/kg	195	76.0	90.1	64.7

## Mass Analysis EPA 3050A

Matrix Type	S	S	S	S
CTL Sample No.	14427	14428	14429	14430
Field ID	#5	#6	#7	#8
Copper-mg/kg	128	141	81.7	58.9
Nickel-mg/kg	21.8	15.3	18.7	7.3
Lead-mg/kg	36.5	15.8	12.2	11.4
Zinc-mg/kg	74.5	92.1	62.1	50.0

Matrix Types : W = Water/Aqueous  
S = Soil/Solid  
O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.  
165 Gracey Avenue / Meriden, CT 06451-2268  
(203)-634-3731

Connecticut Certification No. PH-0547

Date Samples Received : 11-18-94

Client Name: HRP Associates Inc.  
Report Date: 12-5-94

CTL Lab No. 114-376-15  
PO/Job No. MAC0013.RC

RESULTS OF ANALYSIS

## Mass Analysis EPA 3050A

Matrix Type	S	S	S	S
CTL Sample No.	14431	14432	14433	14434
Field ID	#9	#10	#11	#12
Copper-mg/kg	168	105	106	50.6
Nickel-mg/kg	9.8	10.4	12.3	8.2
Lead-mg/kg	13.2	10.6	17.9	17.8
Zinc-mg/kg	55.6	46.8	59.6	43.7

## Mass Analysis EPA 3050A

Matrix Type	S	S	S	
CTL Sample No.	14435	14436	14437	
Field ID	#13	#14	#15	
Copper-mg/kg	45.8	57.6	32.8	
Nickel-mg/kg	12.3	10.3	10.6	
Lead-mg/kg	11.8	13.6	97.0	
Zinc-mg/kg	50.0	48.8	225	

Matrix Types : W = Water/Aqueous  
S = Soil/Solid  
O = Oil/Hydrocarbons

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 203-793-6899  
Fax: 203-793-6871

# HRP

## CHAIN OF CUSTODY

Sheet 1 of       
Job Number MAC0013-RL  
Project Manager RDM

Place & Address of Collection MacDermid

Samplers Name (Signature) [Signature]

Assistant (Witness)(Signature) [Signature]

WATERBURY, CT

Sample Number	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Type				Remarks
							Water	Soil	Air	Waste	
1		G	802	cool	11-18	9:15		✓			
2		G	↓	↓	↓	9:20		✓			
3		G	↓	↓	↓	9:25		✓			
4		G	↓	↓	↓	9:30		✓			
5		G	↓	↓	↓	9:35		✓			

Relinquished By (Signature) [Signature]

Received By (Signature) M. McMahon

Date 11/18/94

Time 12:55

Relinquished By (Signature) [Signature]

Received By (Signature) [Signature]

Date     

Time     

Name & Address of Laboratory CTL Mendon

### LABORATORY SAMPLE PREPARATION REQUIRED

None ☐

Filtr ☐

Adjust pH to     

Priority ☐

Other     

### ANALYSES REQUIRED

Parameters	Sample Number						Parameters	Sample Number					
	1	2	3	4	5								
pH							TPH 418.1						
Ag							TOC						
Al							TOX						
As							STD Water						
Ba							Total Coliform						
Cd							Fluoride						
CN-A							Chloride						
CN-T							8010/601						
Cr <sup>6</sup>							8015						
Cr-T							8020/602						
Cu ✓	X	X	X	X	X		8020 + MTBE						
Fe-D							8080						
Hg							8100						
Ni							8 TCLP Metals						
Pb ✓	X	X	X	X	X								
Se													
Sp. Cond.													
TDS													
✓	X	X	X	X	X								

Remarks \* SA TEST all USING mass analysis

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 203-793-6899  
Fax: 203-793-6871

# HRP

## CHAIN OF CUSTODY

Sheet 2 of         
Job Number MACC013.BC  
Project Manager R.D.M.

Place & Address of Collection MacDermid & Co

Samplers Name (Signature) [Signature]

Assistant (Witness) (Signature) [Signature]

Sample Number	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Type				Remarks
							Water	Soil	Air	Waste	
6		G	802	(COO)	11-18	9:40		✓			
7		↓	↓	↓	↓	9:45		✓			
8		↓	↓	↓	↓	9:50		✓			
9		↓	↓	↓	↓	9:55		✓			
10		↓	↓	↓	↓	10:00		✓			

Relinquished By (Signature) [Signature]

Received By (Signature) [Signature]

Date 11/18/94

Time 12:55

Relinquished By (Signature) [Signature]

Received By (Signature) [Signature]

Date

Time

Name & Address of Laboratory CTL Mendon

### LABORATORY SAMPLE PREPARATION REQUIRED

None ☐ Filter ☐ Adjust pH to        Priority ☐

Other

### ANALYSES REQUIRED

Parameters	Sample Number						Parameters	Sample Number					
	6	7	8	9	10								
pH							TPH 418.1						
Ag							TOC						
Al							TOX						
Az							STD Water						
Ba							Total Coliform						
Cd							Fluoride						
CN-A							Chloride						
CN-T							B010/601						
Cu <sup>++</sup>							B015						
Cr-T							B020/602						
Cu	✓	X	X	X	X	X	B020 + MTBE						
Fe-D							B080						
Hg							B100						
Na							B TCLP Metals						
Ni	✓	X	X	X	X	X							
Pb	✓	X	X	X	X	X							
Se													
Sp. Cond.													
TDS													
	✓	X	X	X	X	X							

Remarks

Test all using mass analysis

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 203-793-6899  
Fax: 203-793-6871

# HRP

## CHAIN OF CUSTODY

Sheet 3 of 3  
Job Number MAC0013.RC  
Project Manager RDM

Place & Address of Collection

Sampler's Name (Signature)

Assistant (Witness) (Signature)

Sample Number	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Type				Remarks
							Water	Soil	Air	Waste	
11		G	802	cool	11-18	10:05		/			
12		↓	↓	↓		10:10		/			
13		↓	↓	↓		10:15		/			
14		↓	↓	↓		10:20		/			
15		↓	↓	↓		10:25		/			

Relinquished By (Signature)

*Joan Femen*

Received By (Signature)

*M McMahon*

Date 11/18/94

Time 12:55

Relinquished By (Signature)

Received By (Signature)

Date

Time

Name & Address of Laboratory

*CTL Menden*

### LABORATORY SAMPLE PREPARATION REQUIRED

None ☐

Filter ☐

Adjust pH to \_\_\_\_\_

Priority ☐

Other

### ANALYSES REQUIRED

Parameters	Sample Number						Parameters	Sample Number					
	11	12	13	14	15								
pH							TPH 418.1						
Ag							TOC						
Al							TOX						
As							STD Water						
Ba							Total Coliform						
Cd							Fluoride						
CN-A							Chloride						
CN-T							B010/501						
Cr <sup>6+</sup>							B015						
Cr-T							B020/502						
Cu	/	X	X	X	X	X	B020 + MTBE						
Fe-D							B080						
Hg							B100						
Na							6 TCLP Metals						
Ni	/	X	X	X	X	X							
Pb	/	X	X	X	X	X							
Se													
Sp. Cond.													
TDS	/	X	X	X	X	X							

Remarks

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
F ne: 203-793-6899  
Fax: 203-793-6871

# HRP

## CHAIN OF CUSTODY

Sheet 1 of 1  
Job Number MAC0013-PC  
Project Manager RDM

Place & Address of Collection MALDEN, INC.  
WATERBURY, CT

Samplers Name (Signature) David T. Fazio  
Assistant (Witness)(Signature)

Sample Number	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Type				Remarks
							Water	Sol	Air	Waste	
16		G	8 oz.	COOL	11/23	9:30AM		X			
17		↓	↓	↓	↓	↓		X			
18		↓	↓	↓	↓	↓		X			

Relinquished By (Signature) David T. Fazio Received By (Signature) M. McMahon Date 11/23/94 Time 11:00  
Relinquished By (Signature) Received By (Signature) Date Time

Name & Address of Laboratory CTL MENDEN

### LABORATORY SAMPLE PREPARATION REQUIRED

None ☐ Filter ☐ Adjust pH to \_\_\_\_\_ Priority ☐

Other

### ANALYSES REQUIRED

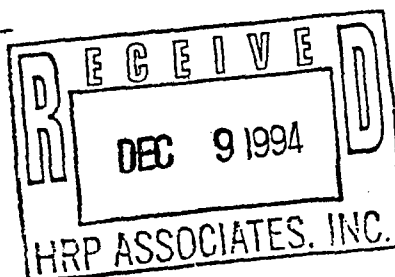
Parameters	Sample Number				Parameters	Sample Number			
	16	17	18						
pH					TPH 418.1				
Ag					TOC				
Al					TOX				
As					STD Water				
Ba					Total Coliform				
Cd					Fluoride				
CN-A					Chloride				
CN-T					8010/601				
Cr <sup>6+</sup>					8015				
Cr-T					8020/602				
Cu	✓	X	X	X	8020 + MTBE				
Fe-D					8080				
Hg					8100				
Na					8 TCLP Metals				
Ni	✓	X	X	X					
Pb	✓	X	X	X					
Se									
Sp. Cond.									
TDS									
	✓	X	X	X					

Test all using Mass Analysis

December 7, 1994

HRP Associates Inc.  
167 New Britain Ave  
Plainville, CT 06062

Attn: Ms. Pat Terwilliger



Please find attached laboratory report(s) for the samples submitted on :  
November 23, 1994

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No. : 114-442-3  
PO/JOB No. : MAC0013.RC  
INVOICE No. : 48234  
ORDER No. : 28163  
CUSTOMER No.: 350

Please feel free to contact us if you have any questions.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Stephen J. Franco".

Stephen J. Franco  
Laboratory Director  
PH-0547



STEPHEN J. FRANCO  
Laboratory Director  
PHONE ■ 203/634-3731  
165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451



Date Samples Received : 11-23-94

Client Name: HRP Associates Inc.  
Report Date: 12-7-94

CTL Lab No. 114-442-3  
PO/Job No. MAC0013.RC

**RESULTS OF ANALYSIS****Mass Analysis EPA 3050A**

Matrix Type	S	S	S	
CTL Sample No.	14621	14622	14623	
Field ID	#16	#17	#18	
Copper-mg/kg	35.6	80.8	170	
Nickel-mg/kg	16.9	15.3	9.5	
Lead-mg/kg	27.9	24.4	25.7	
Zinc-mg/kg	90.2	48.4	92.4	

Matrix Types : W = Water/Aqueous  
S = Soil/Solid  
O = Oil/Hydrocarbons

APPENDIX L  
1987 INK SPILL REPORTS

cc: J. Post  
Updike, Kelly  
J. Frazier  
B. Schwabach

39 Riverside Avenue  
Westport, Connecticut 06880  
(203) 227-8497



IPC Corporation

December 14, 1987

Ms. Cherrie Gillis  
MacDermid, Inc.  
245 Freight St.  
Waterbury, CT 06708

Re: Analysis of Soil and Ink Material

Dear Ms. Gillis:

Per your request, we have sampled the ink material which was recently discovered under a concrete pad at the Huntingdon Avenue facility. Results are summarized below:

1. We understand that the material consists of epoxy-like ink products manufactured at MacDermid. A Material Safety Data Sheet for a representative ink (MACuMask 9415) is attached. Composition of this product is:

Pigments (organic, non-metallic)	=	0.4%
Catalyst (aromatic ketones)	=	7.8%
Vehicle (acrylic monomers)	=	75.5%
Additives (fillers such as MgO, CaSO <sub>4</sub> , etc.)	=	21.3%

Per MacDermid personnel, we understand that any waste ink is classified as a non-hazardous waste.

2. Based on a phone conversation with John Prendiville, Sanitary Engineer with the Connecticut Department of Environmental Protection (DEP) Hazardous Waste Unit, DEP cleanup requirements for waste spills are as follows:

- For hazardous wastes, cleanup should be in accordance with EPA's "Surface Impoundment Clean Closure Guidance Manual".
- For non-hazardous wastes, cleanup should be in accordance with DEP's "Contaminated Soils Removal and Disposal Guidelines".

## IPC Corporation

Ms. Cherrie Gillis  
December 14, 1987  
Page Two

Since the ink material is reportedly classified as a non-hazardous waste, "Contaminated Soils Removal and Disposal Guidelines" was used as the basis for cleanup. A copy of this document is attached.

3. Sample collection was as follows (see Figure 1: Plan View-Area of Excavation).

Following removal of the concrete pad and partial excavation of the area, two composite samples were collected from the western face of the excavation. From grade elevation, this face consisted of approximately 18" of topsoil over a 6" layer of paste-like ink/soil mixture. Below the ink was a 4" layer of dark brown (discolored) soil. Soil which visually appeared to be uncontaminated began at approximately 28" below grade.

Samples consisted of:

- #1471-1: Composite of visually clean soil collected at a depth of approximately 30" below grade.
- #1471-2: Composite of the ink/soil layer.

Two types of containers were used for each sample:

- 40 ml glass vials with teflon septum for organics analysis.
- 1 pt. glass container with plastic lid for metals analysis.

4. In accordance with "Contaminated Soils Removal and Disposal Guidelines", the samples were analyzed for:

Organics - EPA Methods 8010, 8015, 8020, plus ethylene glycol, acrylonitrile, 1,4 dioxane, isopropyl alcohol.

Metals & cyanide - EP Toxicity (arsenic, barium, chromium, cadmium, lead, mercury, selenium, silver, cyanide)

# IPC Corporation

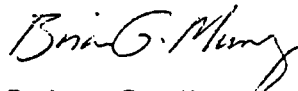
Ms. Cherrie Gillis  
December 14, 1987  
Page Three

The data indicates that:

- The ink/soil layer (Sample #1471-2) contained a total hydrocarbon concentration of 97.16 ppm, consisting primarily of 1,1,1-trichloroethane, benzenes, toluene, and xylenes. The source of the hydrocarbons is unknown, as the ink products reportedly do not contain these constituents.
  - The visually clean soil (sample #1471-1) collected at the depth of 30" below grade was free of contamination, indicating that hydrocarbon constituents had not migrated below the discolored area.
5. Based on the above results, the area of ink contamination was excavated to a depth of 30" to 36". A composite sample of the soil at the bottom of the excavation was collected and analyzed for the parameters listed above. This sample (#1371-3) was free of contamination, indicating that the contamination had been successfully excavated.
6. Since the ink/soil layer contained greater than 50 ppm total hydrocarbons, it must be handled as a hazardous waste according to "Contaminated Soils Removal and Disposal Guidelines". Approximately 550 ft<sup>3</sup> of soil was excavated, and is being stored in 55 gallon drums pending disposal.

If you have any questions, please advise.

Very truly yours,



Brian G. Murray, P.E.

BGM:bn  
Attach.

# CONTAMINATED SOILS REMOVAL & DISPOSAL GUIDELINES

When investigating sites where soil contamination has occurred, the Department must determine whether or not contaminated soils should be excavated and disposed of. Soil removal will depend primarily upon the specific contaminants present and the ground and surface water classifications at the site. The Department's purpose in requiring soil removal is to safeguard human health and the environment by removing and thereby eliminating potential sources of pollution. To achieve this objective the Department has developed the following guidance regarding soil removal and disposal.

## I. Metals and Cyanides

The extent of heavy metal and cyanide contamination in soils is determined by the EP Toxicity test (40CFR, Part 261, Appendix II).

In areas having groundwater classification goals of  $G_{AA}$  or  $G_A$ , all soils having metal or Cyanide concentrations that exceed established drinking water standards must be excavated and removed. Soils having concentrations up to thirty (30) times drinking water or human health standards are classified as "contaminated soil" and can be transported by a general contractor to a solid waste disposal facility approved by the Department of Environmental Protection. Soils with levels above 30 times the drinking water standard or human health standards are considered to be "hazardous waste" and must be manifested and transported by a licensed hazardous waste transporter for disposal in a permitted hazardous waste disposal facility.

In areas having groundwater classification goals of  $G_B$ , all soils tested and found to be hazardous, must be excavated and disposed of in the above described fashion. Soils tested and found to contain levels between 10 x's and 30 x's drinking water standards can be approved to a permitted solid waste disposal areas in the above described fashion. Soils tested and found to contain levels of metals between drinking waste standards and ten times (10 x's) these standards and/or found to be at or below background levels may on a case by case basis be left in place. In these situations a post-closure care, maintenance, and monitoring program may be required.

## II. Hydrocarbon

The extent of hydrocarbon contamination in soil is determined by the appropriate analytical method detailed in Environmental Protection Agency Manual SW-846.

In areas having groundwater classification goals of  $G$  or  $G_{AA}$ , all soils having hydrocarbon above the published Suggested No Adverse Response Levels (SNARL's) shall be excavated and disposed of. Soils where it is found that the sum of all hydrocarbons exceed 50ppm will be considered hazardous waste and must be manifested and transported by a permitted hazardous waste transporter to a permitted hazardous waste disposal site. Appendix I lists the contaminant and the specific analytical test reference which must be done in all cases. In addition, on a site by site basis an analysis for contaminants listed in 40CFR Part 261, Appendix VIII may also be requested and included in the sum.

Per Soil (line) be  
from soil test and  
analysis under all possible  
hydrocarbon

Soils containing less than the 50ppm of total hydrocarbons but greater than the SNARLS shall be considered contaminated and can be excavated and disposed of by a general contractor at a DEP approved Solid Waste disposal facility.

In areas having a groundwater classification goal of G<sub>B</sub> where historic contamination is in evidence or suspected and where adjacent surface water bodies are classed B or lower, representative background samples, agreed upon by representatives of Department of Environmental Protection, shall be obtained and used as the basis for the excavation standard. When background hydrocarbon concentrations are found which exceed SNARLS but are below the 50ppm level, these soils may, on a case by case basis, be left in place. In these situations a post-closure care, maintenance and monitoring program may be required.

### III Notes:

1. This document is intended to provide general guidance for most soil contamination incidents. Since each site is evaluated on a case by case basis, Remedial Action not identified in this document may be required.
2. Excavations generally will not extend far below the water table due to soil instability; the depth of excavation below the water table will be determined on a case by case basis.
3. Excavations generally will not extend below proven barriers to contaminant movement such as clay, silt lenses, or termination of soil at the bedrock surface.
4. In fine grained silt and/or clay soils, the EP Toxicity procedure can result in high lead concentrations which may not accurately reflect the true hazard of these soils. These results will be reviewed on a case by case basis considering such factors as probable source, grain size analysis, and, or mass analysis data.
5. Safety and practical restrictions regarding the depth of excavation will be considered.
6. Background quality.

In lieu of complete removal of soils for the above reasons or if it appears that substantial quantities of hazardous constituents have migrated to the groundwater, the State may require an on-going monitoring program. At such time that the contaminants involved or the degradation of products exceed acceptable levels in the monitoring network further remedial actions may be required.

7. Acutely toxic wastes or wastes that are not included in the Appendix will be evaluated on a case by case basis.

AROMATIC VOLATILE ORGANICS

Benzene

Chlorobenzene

1,2-Dichlorobenzene

1,3-Dichlorobenzene

1,4-Dichlorobenzene

Ethyl benzene

Toluene

Xylenes (Dimethyl benzenes)

✓ = Method 602

*Purgeable Aromatics*• Method 624  
Purgeables

## METHOD 8015

NONHALOGENATED VOLATILE ORGANICS

Acrylamide

Carbon disulfide

Diethyl ether

Methyl ethyl ketone (MEK)

Methyl isobutyl ketone (MIBK)

Paraldehyde (trimer of acetaldehyde)

## METHOD 8010

HALOGENATED VOLATILE ORGANICS

Benzyl chloride

Bis (2-chloroethoxy) methane

Bis (2-chloroisopropyl) ether

Bromobenzene

Bromodichloromethane

Bromoform

Bromomethane

Carbon Tetrachloride

Chloroacetaldehyde

Chloral

Chlorobenzene

Chloroethane

Chloroform

1-Chlorohexane

2-Chloroethyl vinyl ether

Chloromethane

Chloromethyl methyl ether

Chlorotoluene

Dibromochloromethane

Dibromomethane

✓ 1,2-Dichlorobenzene

✓ 1,3-Dichlorobenzene

✓ 1,4-Dichlorobenzene

✓ Dichlorodifluoromethane

✓ 1,1-Dichloroethane

✓ 1,2-Dichloroethane

✓ 1,1-Dichloroethylene (Vinylidene Chloride)

✓ trans-1,2-Dichloroethylene

✓ Dichloromethane (*methylene chloride*)

✓ 1,2-Dichloropropane

✓ 1,3-Dichloropropylene

✓ 1,1,2,2-Tetrachloroethane

✓ 1,1,1,2-Tetrachloroethane

✓ Tetrachloroethylene

✓ 1,1,1-Trichloroethane

✓ 1,1,2-Trichloroethane

✓ Trichloroethylene

✓ Trichlorofluoromethane

Trichloropropane

✓ Vinyl chloride

✓ = Method 601

*Purgeable Halocarbons*



STATE OF CONNECTICUT  
DEPARTMENT OF HEALTH SERVICES

SNARLS

VOLATILE ORGANICS ACTION LEVELS

The Department of Health Services uses Public Health Code Regulation 19-13-B102 and the following list to determine the potability of drinking water supplies. The concentrations given are action levels and are expressed in micrograms per liter.

<u>COMPOUND</u>	<u>ACTION LEVEL</u> (micrograms/liter)
Acrylonitrile	35
Benzene	1
1,4 dioxane	20
Ethylene glycol	100
Isopropyl alcohol	1,000
Methylene chloride	25
Methylethyl ketone	1,000
Polychlorinated biphenyls (PCB)	1
Tetrachloroethylene	20
Toluene	1,000
1,1,1 Trichloroethane	300
Trichloroethylene	25
1,2 Dibromoethane (EDB)	0.1
1,2 Dichloroethane (EDC)	1
1,2 Dichloropropane	10
1,3 Dichloropropene	10

RJ/PR/ch  
9/14/84

bb2

Phone: 566-1253

150 Washington Street — Hartford, Connecticut 06106  
An Equal Opportunity Employer

NAME OF COMPANY MALDERMID INC

SUBJECT \_\_\_\_\_

JOB NO. 1471

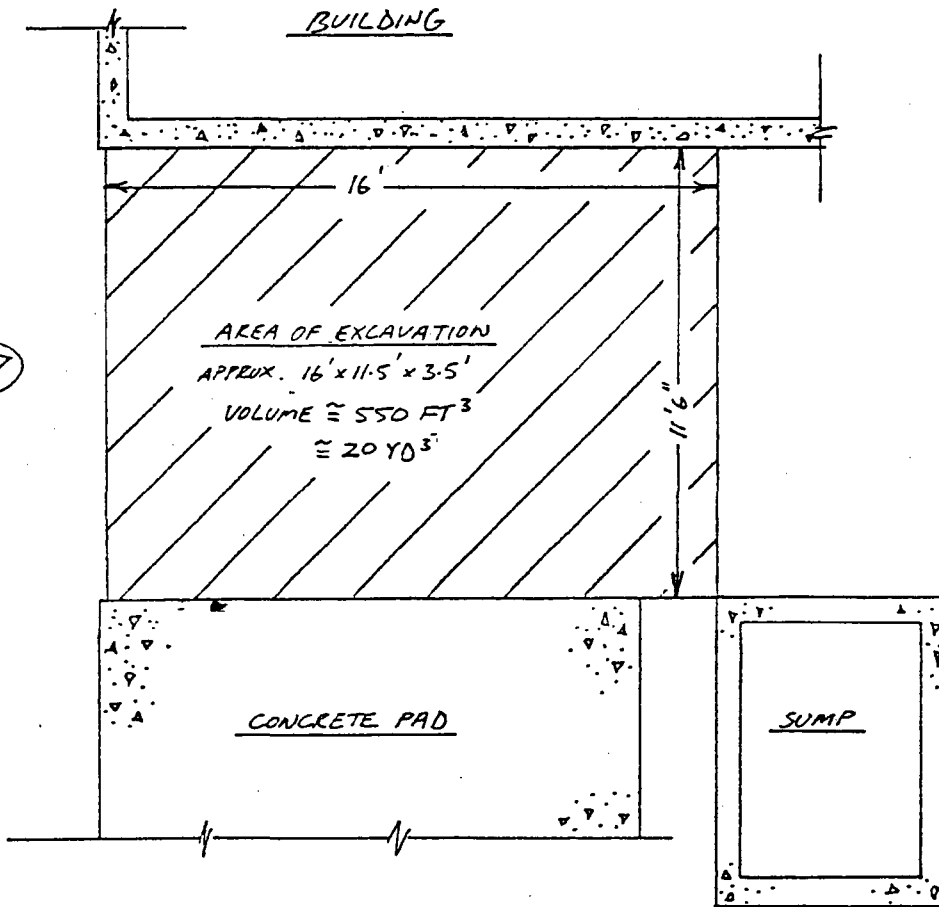
SHEET NO. 1 OF 1

DATE 12/11/87

BY BGM

FIGURE 1

PLAN VIEW - AREA OF EXCAVATION



# BARON CONSULTING CO.

HARRY AGAHIGIAN, Ph.D., DIRECTOR

analytical services

P.O. BOX 663, ORANGE CT. 06477

December 9, 1987

Mr. Kevin Malone  
Industrial Pollution Control  
39 Riverside Avenue  
Westport, Ct. 06880

Re: Analysis of 3 Waste samples PO# 1471  
BC# 56947 - 56983

SAMPLE I.D.

1471-1: "CLEAN" SOIL COLLECTED 30" BELOW  
GRADE

1471-2: INK/SPILL LAYER

1471-3: "CLEAN" SOIL COLLECTED FROM  
BOTTOM OF EXCAVATION

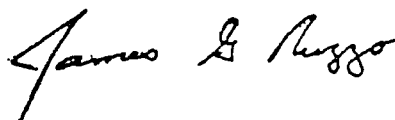
	1	2	3	
EP Tox.				<u>LIMIT FOR NON-HAZARDOUS WASTE</u>
Pb	ND<0.05	0.10	ND<0.05	< 5.0
Cd	ND<0.01	ND<0.01	ND<0.01	< 1.0
Cr	ND<0.05	ND<0.05	ND<0.05	< 5.0
As	ND<0.01	ND<0.01	ND<0.01	< 5.0
Se	ND<0.01	ND<0.01	ND<0.01	< 1.0
Hg	ND<0.001	ND<0.001	ND<0.001	< 0.2
Ag	ND<0.01	ND<0.01	ND<0.01	< 5.0
Ba	0.21	0.40	0.20	< 100.0
CN	ND<0.1	ND<0.1	ND<0.1	-

All values are expressed in mg/l.

Please review the data and contact us if you wish more information.

JGN/rsb

James G. Nuzzo  
Chemist



This report is submitted with the understanding that it is not to be reproduced for advertising or other purposes over our signature without express written permission from us. We do not accept any liability concerning the use of these results.

NOT RESPONSIBLE FOR SAMPLES LEFT OVER 30 DAYS AFTER RECEIPT OF REPORT

Connecticut Public Health Laboratory No. 0440

EPA Number CT015

LABORATORY LOCATED AT TWO PEPE'S FARM ROAD, MILFORD, CT 06460 (203) 874-5678 - 874-5679 - 874-6839

# BARON CONSULTING CO.

HARRY AGAHIGIAN, Ph.D., DIRECTOR

analytical services

P.O. BOX 663, ORANGE CT. 06477

December 9, 1987

To: Mr Brian Murry  
Industrial Pollution Control  
39 Riverside Avenue  
Westport, CT 06880

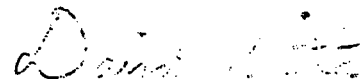
Re: Analysis of 3 samples  
BC# 56947, 56983  
Project #1471

The samples were analyzed as per EPA Methods 8010, 8020 and 8015. Results are listed on the following pages in ppb (ug/kg):

In addition, the samples were analyzed for the parameters listed below. Results are listed in ug/kg (ppb):

	1471-1	1471-2	1471-3
Ethylene glycol	ND<1,000	ND<1,000	ND<1,000
Acrylonitrile	ND<1,000	ND<1,000	ND<1,000
1,4 Dioxane	ND<2,000	ND<2,000	ND<2,000
Isopropyl alcohol	ND<1,000	ND<1,000	ND<1,000

Please call us if you have any questions.



David Ditta, Chemist  
Senior Consultant

DD/dc  
encl

This report is submitted with the understanding that it is not to be reproduced for advertising or other purposes over our signature without express written permission from us. We do not accept any liability concerning the use of these results.

NOT RESPONSIBLE FOR SAMPLES LEFT OVER 30 DAYS AFTER RECEIPT OF REPORT

Connecticut Public Health Laboratory No. 0440

EPA Number CT015

LABORATORY LOCATED AT 273 PEPLO FARM ROAD, MILFORD, CT 06460 (203) 874-5678 - 874-5679 - 874-6835

EPA METHOD 8010  
 HALOGENATED VOLATILE ORGANICS  
 -----

1471  
 BL# 56983

Results are in ppb

	1471-1	1471-2	1471-3
1. Benzyl chloride	ND<15	ND<15	ND<15
2. Bis (2-chloroethoxy)methane	ND<15	ND<15	ND<15
3. Bis (2-chloroisopropyl)ether	ND<15	ND<15	ND<15
4. Bromobenzene	ND<15	ND<15	ND<15
5. Bromodichloromethane	ND<15	ND<15	ND<15
6. Bromoform	ND<15	ND<15	ND<15
7. Bromomethane	ND<50	ND<50	ND<50
8. Carbon tetrachloride	ND<15	ND<15	ND<15
9. Chloroacetaldehyde	ND<15	ND<15	ND<15
10. Chloral	ND<15	ND<15	ND<15
11. Chlorobenzene	ND<15	ND<15	ND<15
12. Chloroethane	ND<15	ND<15	ND<15
13. Chloroform	ND<15	ND<15	ND<15
14. 1-Chlorohexane	ND<15	ND<15	ND<15
15. 2-Chloroethyl vinyl ether	ND<15	ND<15	ND<15
16. Chloromethane	ND<50	ND<50	ND<50
17. Chloromethyl methyl ether	ND<15	ND<15	ND<15
18. Chlorotoluene	ND<15	ND<15	ND<15
19. Dibromochloromethane	ND<15	ND<15	ND<15
20. Dibromomethane	ND<15	ND<15	ND<15
21. 1,2-Dichlorobenzene	ND<15	ND<15	ND<15
22. 1,3-Dichlorobenzene	ND<15	ND<15	ND<15

	1471-1	1471-2	1471-3
23. 1,4-Dichlorobenzene	ND<15	ND<15	ND<15
24. Dichlorodifluoromethane	ND<15	ND<15	ND<15
25. 1,1-Dichloroethane	ND<15	ND<15	ND<15
26. 1,2-Dichloroethane	ND<15	ND<15	ND<15
27. 1,1-Dichloroethylene	ND<15	ND<15	ND<15
28. trans-1,2-Dichloroethylene	ND<15	ND<15	ND<15
29. Dichloromethane	ND<15	ND<15	ND<15
30. 1,2-Dichloropropane	ND<15	ND<15	ND<15
31. 1,3-Dichloropropylene	ND<15	ND<15	ND<15
32. 1,1,2,2-Tetrachloroethane	ND<15	ND<15	ND<15
33. 1,1,1,2-Tetrachloroethane	ND<15	ND<15	ND<15
34. Tetrachloroethylene	ND<15	70	ND<15
35. 1,1,1-Trichloroethane	ND<15	5,000	ND<15
36. 1,1,2-Trichloroethane	ND<15	ND<15	ND<15
37. Trichloroethylene	ND<15	ND<15	ND<15
38. Trichlorofluoromethane	ND<15	ND<15	ND<15
39. Trichloropropane	ND<15	ND<15	ND<15
40. Vinyl chloride	ND<50	ND<50	ND<50

EPA METHOD 8020  
AROMATIC VOLATILE ORGANICS  
-----

PO# 1471

BC# 56983

Results are in ppb

	1471-1	1471-2	1471-3
	-----	-----	-----
1. Benzene	ND<5	14,760	ND<5
2. Chlorobenzene	ND<15	ND<15	ND<15
3. 1,2-Dichlorobenzene	ND<15	ND<15	ND<15
4. 1,3-Dichlorobenzene	ND<15	ND<15	ND<15
5. 1,4-Dichlorobenzene	ND<15	ND<15	ND<15
6. Ethyl benzene	ND<5	2,910	ND<5
7. Toluene	ND<5	62,970	ND<5
8. Xylenes (Dimethyl benzenes)	ND<5	11,450	ND<5

EPA METHOD 8015  
NONHALOGENATED VOLATILE ORGANICS  
-----

PO# 1472  
BC# 56983  
Results are in ppb

	<u>1471-1</u>	<u>1471-2</u>	<u>1471-3</u>
1. Acrylamide	ND<200	ND<200	ND<200
2. Carbon disulfide	ND<200	ND<200	ND<200
3. Diethyl ether	ND<200	ND<200	ND<200
4. Methyl ethyl ketone(MEK)	ND<200	ND<200	ND<200
5. Methyl isobutyl ketone(MIBK)	ND<200	ND<200	ND<200
6. Paraldehyde (trimer of acetaldehyde)	ND<200	ND<200	ND<200



MEG:pcp  
11/21/83 (R)

U.S. DEPARTMENT OF LABOR  
WAGE AND LABOR STANDARDS ADMINISTRATION  
Bureau of Labor Standards

CODE #  
19415

MATERIAL SAFETY DATA SHEET

<b>SECTION I</b>		EMERGENCY TELEPHONE NO. (203) 575-5700
MANUFACTURER'S NAME <b>MacDermid, Inc.</b>		Metal Finishing Suppliers Ass'n. 24-hour Hotline (313) 644-5626
ADDRESS (Number, Street, City, State, and Zip Code) <b>526 Huntingdon Ave., Waterbury, CT 06720</b>		
CHEMICAL NAME AND SYNONYMS		TRADE NAME AND SYNONYMS <b>MACuMask 9415</b>
CHEMICAL FAMILY <b>Acrylic</b>	FORMULA	

SECTION II - HAZARDOUS INGREDIENTS					
PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS	0.4		BASE METAL		
CATALYST	7.8		ALLOYS		
VEHICLE	75.5		METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES	21.3		OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
Not applicable					

SECTION III - PHYSICAL DATA			
BOILING POINT (°F.)		SPECIFIC GRAVITY (H <sub>2</sub> O=1)	1.250
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	0.0
VAPOR DENSITY (AIR=1)		EVAPORATION RATE (_____ =1)	N.A.
SOLUBILITY IN WATER	Very slight		
APPEARANCE AND ODOR <b>Green</b>			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used)	> 200°F.	FLAMMABLE LIMITS	Lel Uel
EXTINGUISHING MEDIA	Dry chemical		
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

N.A. = Not applicable

## SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE

Severe eye irritation; mild irritant to skin.

EMERGENCY AND FIRST AID PROCEDURES

Eyes - remove ink with a cotton swab. Wash with water. Get medical aid.

Skin - wash with mild soap and water.

Inhalation - remove to fresh air. Call physician.

EMERGENCY NO. (313) 644-5626

## SECTION VI - REACTIVITY DATA

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

Avoid prolonged storage above 70°F.

INCOMPATIBILITY (Materials to avoid)

Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION

CONDITIONS TO AVOID

MAY OCCUR

WILL NOT OCCUR

X

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Material should be removed with a spatula and area wiped with a rag saturated with Dowanol DPM (dipropylene glycol monomethyl ether).

WASTE DISPOSAL METHOD

Observe state and local ordinances pertaining to disposal. Should not be burned, but used as solid landfill.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION

LOCAL EXHAUST

Preferable

SPECIAL

Not applicable

MECHANICAL (General)

OTHER

Not applicable

PROTECTIVE GLOVES

Yes

EYE PROTECTION

Safety glasses

OTHER PROTECTIVE EQUIPMENT

Eye bath

## SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Storage should be conducted at 70°F. (21°C.) + 10°F. Use with adequate ventilation. Avoid prolonged or repeated contact with skin.

OTHER PRECAUTIONS

May 5, 1988

Mr. Jim Ray  
DEP Hazardous Waste Unit  
165 Capitol Avenue  
Hartford, CT 06106

*Benzene + Toluene  
46 42*

Re: MacDermid, Inc., Waterbury

Dear Mr. Ray:

Attached please find analytical results for the two soil samples which were collected on 23 March 88 at the MacDermid, Inc., Huntingdon Avenue facility.

*- excavation # 1*

As you know, the samples were collected at the area which had been excavated for removal of ink residues. One sample (#1471E) was taken from the eastern face of the excavation, and the second sample (#1471W) was taken from the western face. Per your request the samples were analyzed for EPA Method 8010 (Halogenated Volatile Organics), Method 8015 (Nonhalogenated Volatile Organics), and Method 8020 (Aromatic Volatile Organics).

The data indicates that:

1. None of the above constituents were detected in Sample #1471W.
2. Sample #1471E contained 46ppb benzene and 42 ppb toluene. According to DEP's "Contaminated Soils Removal & Disposal Guidelines", since this area has a groundwater classification of GB and the total hydrocarbon concentration is less than 50,000 ppb, this soil can most likely be left in place.

We, therefore, request your approval to backfill and close the area without further excavation. I will call you in a few days to discuss this matter further. If you have any questions in the meantime, please advise.

Very truly yours,

*Brian G. Murray / afgm*  
Brian G. Murray

CC: Cherrie Gillis, MacDermid

# BARON CONSULTING CO.

HARRY AGAHIGIAN, Ph.D., DIRECTOR

analytical services

P.O. BOX 663, ORANGE CT. 06477

April 6, 1988

To: Mr Brian Murry  
Industrial Pollution Control  
39 Riverside Avenue  
Westport, CT 06880

RECEIVED  
APR 8 1988

Ans'd.....

Re: Analysis of 2 soils  
Project #1471  
BC# 58727

The samples were analyzed as per EPA methods 8010, 8015 and 8020.

Results are listed on the following pages in ppb:

Please call me if you have any questions.

*David Ditta*

David Ditta, Chemist  
Senior Consultant

DD/dc  
encl

This report is submitted with the understanding that it is not to be reproduced for advertising or other purposes over our signature without express written permission from us. We do not accept any liability concerning the use of these results.

NOT RESPONSIBLE FOR SAMPLES LEFT OVER 30 DAYS AFTER RECEIPT OF REPORT

Connecticut Public Health Laboratory No. 0440

EPA Number CT015

EPA METHOD 8010  
HALOGENATED VOLATILE ORGANICS  
-----

Subject #1471  
BC# 58727  
Results are in ppb

	1471E	1471W
1. Benzyl chloride	ND<15	ND<15
2. Bis (2-chloroethoxy)methane	ND<15	ND<15
3. Bis (2-chloroisopropyl)ether	ND<15	ND<15
4. Bromobenzene	ND<15	ND<15
5. Bromodichloromethane	ND<15	ND<15
6. Bromoform	ND<15	ND<15
7. Bromomethane	ND<50	ND<50
8. Carbon tetrachloride	ND<15	ND<15
9. Chloroacetaldehyde	ND<15	ND<15
10. Chloral	ND<15	ND<15
11. Chlorobenzene	ND<15	ND<15
12. Chloroethane	ND<15	ND<15
13. Chloroform	ND<15	ND<15
14. 1-Chlorohexane	ND<15	ND<15
15. 2-Chloroethyl vinyl ether	ND<15	ND<15
16. Chloromethane	ND<50	ND<50
17. Chloromethyl methyl ether	ND<15	ND<15
18. Chlorotoluene	ND<15	ND<15
19. Dibromochloromethane	ND<15	ND<15
20. Dibromomethane	ND<15	ND<15
21. 1,2-Dichlorobenzene	ND<15	ND<15
22. 1,3-Dichlorobenzene	ND<15	ND<15

	1471E	1471W
	-----	-----
23. 1,4-Dichlorobenzene	ND<15	ND<15
24. Dichlorodifluoromethane	ND<15	ND<15
25. 1,1-Dichloroethane	ND<15	ND<15
26. 1,2-Dichloroethane	ND<15	ND<15
27. 1,1-Dichloroethylene	ND<15	ND<15
28. trans-1,2-Dichloroethylene	ND<15	ND<15
29. Dichloromethane	ND<15	ND<15
30. 1,2-Dichloropropane	ND<15	ND<15
31. 1,3-Dichloropropylene	ND<15	ND<15
32. 1,1,2,2-Tetrachloroethane	ND<15	ND<15
33. 1,1,1,2-Tetrachloroethane	ND<15	ND<15
34. Tetrachloroethylene	ND<15	ND<15
35. 1,1,1-Trichloroethane	ND<15	ND<15
36. 1,1,2-Trichloroethane	ND<15	ND<15
37. Trichloroethylene	ND<15	ND<15
38. Trichlorofluoromethane	ND<15	ND<15
39. Trichloropropane	ND<15	ND<15
40. Vinyl chloride	ND<50	ND<50

EPA METHOD 8020  
AROMATIC VOLATILE ORGANICS  
-----

Project #1471  
BC# 58727  
Results are in ppb

	1471E	1471W
	-----	-----
1. Benzene	46	ND<5
2. Chlorobenzene	ND<15	ND<15
3. 1,2-Dichlorobenzene	ND<15	ND<15
4. 1,3-Dichlorobenzene	ND<15	ND<15
5. 1,4-Dichlorobenzene	ND<15	ND<15
6. Ethyl benzene	ND<5	ND<5
7. Toluene	42	ND<5
Xylenes (Dimethyl benzenes)	ND<5	ND<5

EPA METHOD 8015  
NONHALOGENATED VOLATILE ORGANICS  
-----

Project #1471  
BC# 58727  
Results are in ppb

	1471E	1471W
	-----	-----
1. Acrylamide	ND<200	ND<200
2. Carbon disulfide	ND<200	ND<200
3. Diethyl ether	ND<200	ND<200
4. Methyl ethyl ketone(MEK)	ND<200	ND<200
5. Methyl isobutyl ketone(MIBK)	ND<200	ND<200
6. Paraldehyde(trimer of acetaldehyde)	ND<200	ND<200

3 2



**APPENDIX M**

**RCRA CLOSURE SUMMARY FOR FORMER HAZARDOUS WASTE STORAGE  
AND RECYCLING AREAS (JANUARY 24, 2001)**



January 24, 2001

CERTIFIED MAIL

Mr. David A. Nash, Director  
Waste Engineering & Enforcement Division  
Connecticut Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

RE: RCRA CLOSURE SUMMARY FOR FORMER HAZARDOUS WASTE STORAGE AND RECYCLING AREAS, MACDERMID, INC., 526 HUNTINGDON AVENUE, WATERBURY, CONNECTICUT (HRP #MAC-0030.RC)

Dear Mr. Nash:

On behalf of MacDermid, Inc., HRP Associates, Inc. (HRP) has prepared and enclosed, for your review, a copy of the document entitled "RCRA Closure Summary for Former Hazardous Waste Storage and Recycling Areas." Presented in this document is a summary of the closure activities that were recently performed in the following former 1994 permitted storage/recycling areas located at MacDermid, Inc.'s Huntingdon Avenue facility:

- Flammable Materials Storage Area;
- Spent NMP Recycling Area; and
- Spent Solder Stripper Recycling Area.

As discussed in Section 3.0 of this document, it is HRP's opinion that MacDermid's goal of clean closure has been achieved at the former Flammable Storage Area. To achieve the goal of clean closure in the former NMP and Solder Stripper Recycling Areas, the remedial closure activities summarized in Sections 3.1 and 3.2 are proposed, respectively. Since these remedial closure activities will impact MacDermid's manufacturing operations (high traffic manufacturing areas) and the detected contamination does not appear to pose any immediate threat to human health or the environment, MacDermid, Inc. respectfully requests CT DEP comments/approval prior to conducting any proposed remedial closure activity.

If you have any questions or require any additional information, please contact me at (860) 793-6899.

Sincerely yours,

HRP ASSOCIATES, INC.

Richard D. McFee, P.E.  
Associate

RDM/cpk

Attachment

cc: Greg Strong, MacDermid, Inc.

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- ☐ Complete items 1 and/or 2 for additional services.
- ☐ Complete items 3, 4a, and 4b.
- ☐ Print your name and address on the reverse of this form so that we can return this card to you.
- ☐ Attach this form to the front of the mailpiece, or on the back if space does not permit.
- ☐ Write "Return Receipt Requested" on the mailpiece below the article number.
- ☐ The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. ☐ Addressee's Address
- 2. ☐ Restricted Delivery

**3. Article Addressed to:**

David Nash, Dir.  
WEED  
CT DEP  
79 Elm St.  
Hartford, CT 06106-5127

**4a. Article Number**

Z 288 872-114

**4b. Service Type**

- ☐ Registered
- ☐ Express Mail
- ☒ Return Receipt for Merchandise
- ☒ Certified
- ☐ Insured
- ☐ COD

**7. Date of Delivery**

JAN 26 2001

**5. Received By: (Print Name)**

**8. Addressee's Address (Only if requested and fee is paid)**

**6. Signature (Addressee or Agent)**

*[Signature]*

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

102595-99-B-0223

Domestic Return Receipt

**RCRA CLOSURE SUMMARY  
FOR  
FORMER HAZARDOUS WASTE STORAGE  
AND RECYCLING AREAS**

**MacDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CONNECTICUT**

**HRP #MAC0030.RC**

**January 24, 2001**

Prepared by:

**Richard D. McFee, P.E.  
Associate**

Submitted to:

**Mr. Greg Strong  
MacDermid, Inc.  
245 Freight Street  
Waterbury, Connecticut 06702**

Submitted by:

**HRP Associates, Inc.  
Engineering & Geology  
167 New Britain Avenue  
Plainville, Connecticut 06062**

## TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
1.0	INTRODUCTION.....	1
2.0	RCRA CLOSURE ACTIVITIES .....	3
2.1	Identification of Constituents of Concern .....	4
2.2	Development of Closure Standards.....	5
2.3	Inspections for Floor Cracks and Gaps .....	6
2.4	Subsurface Investigations .....	6
	2.4.1 Former NMP Recycling Area – Additional Subsurface Investigations .	8
	2.4.2 Former Solder Stripper Recycling Area – Additional Investigations.....	9
2.5	Surface Concrete Floor .....	11
	2.5.1 Former Flammable Storage Area .....	12
	2.5.2 Former NMP Recycling Area.....	13
	2.5.3 Former Solder Stripper Recycling Area .....	15
3.0	PROPOSED REMEDIAL CLOSURE ACTIVITIES .....	16
3.1	Former NMP Recycling Area.....	16
3.2	Former Solder Stripper Recycling Area .....	16

### List of Tables

1	Closure Standards for the Flammable Storage Area
2	Closure Standards for the Solder Stripper Recycling Area
3	Closure Standards for the NMP Recycling Area
4	Subsurface Exceedances of Closure Standards
5	February 9, and April 27, 2000 Subsurface Sampling Results for the Former NMP Recycling Area
6	February 9, 2000 Subsurface Sampling Results for the Former Solder Stripper Recycling Area
7	April 23-28, 2000 Subsurface Sampling Results For the Former Solder Stripper Recycling Area (around original sample 004)
8	April 26-28 2000 Subsurface Sampling Results For the Former Solder Stripper Recycling Area (around original sample 012)
9	June 13 2000 Subsurface Sampling Results For the Former Solder Stripper Recycling Area (around original sample 012)
10	Summary Of Concrete Chip Sampling Results (Closure Exceedances) For The Former Flammable Storage Area
11	Summary of Concrete Chip Sampling Results (Closure Exceedances) for the Former NMP Recycling Area
12	Summary Of Concrete Chip Sampling Results for the Former Solder Stripper Recycling Area

## TABLE OF CONTENTS (continued)

### List of Figures

- 1 Site Location
- 2 Facility Layout
- 3 Closure Sampling Locations
- 4 Concrete Sampling Locations –Former NMP Recycling Area
- 5 Concrete and Soil Samples – Former Solder Stripper Recycling Area
- 6 Concrete Sample Exceedances – Former NMP Recycling Area
- 7 Proposed Concrete Removal – Former NMP Recycling Area
- 8 Soil Sampling Exceedances – Former Solder Stripper Recycling Area
- 9 Proposed Soil Removal – Former Solder Stripper Recycling Area
- 10 Concrete Sampling Exceedances – Former Solder Stripping Recycling Area
- 11 Proposed Concrete Removal – Former Solder Stripper Recycling Area

### List of Appendices

- A TCLP Analysis of Metal Hydroxide/Sulfide Sludge
- B Table 13.1 of 1994 Hazardous Waste Closure Plan
- C December 1999 Appendix IX Laboratory Report
- D Calculated Closure Standards
- E January 13, 2000 Sampling Results
- F February 9, 2000 Sampling Results
- G April 26-28, 2000 Sampling Results
- H June 13, 2000 Sampling Results
- I September 6, 1989 Fingerprint Specification for Spent Solder Stripper
- J August 10, 2000 Sampling Results
- K October 3, 2000 Sampling Results

## 1.0 INTRODUCTION

The MacDermid, Inc. facility, located at 526 Huntingdon Avenue in Waterbury, Connecticut (see Figure 1) is currently classified as a generator, treater, storer, and recycler of hazardous and Connecticut-regulated wastes. In August 1994, the Huntingdon Avenue facility received a permit (No. HWM-151-028) from the Connecticut Department of Environmental Protection (CT-DEP) to operate the waste management units listed below.

1994 Permitted Hazardous Waste Management Units			
Waste Management Area	Container Type	Max. # of Containers	Total Storage Area Capacity
Main Container Storage Area	55-gal. drums and/or	1,400	77,000 gallons
	330-gal. storage totes	20	Total combined area capacity not to exceed 77,000 gallons
Quality Control (QC) Waste Staging Area	55-gal. drums and	80	6,380 gallons
	330-gal. storage totes	6	
Combustible Storage Area	55-gal. drums and	54	4,290
	330-gal. storage totes	4	
Flammable Material Storage Area	55-gal. drums	15	880 gallons
Metal Hydroxide/Sulfide Sludge Area	26 yd <sup>3</sup> roll-off dumpster	1	26 yd <sup>3</sup>
Bulk Tank Storage Area	N.A.	N.A.	29,000 gallons (3-8,000 gal. tanks) (1-8,000 gal. tank)
Recycling Tanks associated with spent copper etchant, spent solder stripper, and spent N-methyl Pyrrolidone (NMP)	N.A.	N.A.	15,300 gallons

The general locations of the 1994 hazardous waste management units are shown on Figure 2. All figures are provided at the end of the report.

In February 1999<sup>1</sup>, MacDermid, Inc. submitted an updated Hazardous Waste Part B Permit Application to the CT-DEP for review and approval. As a result of changes in MacDermid, Inc.'s operations, the February 1999 permit application requested a final Resource Conservation and Recovery Act (RCRA) and Connecticut General Statutes (CGS) Section 22a-454 operating permit for only the spent copper etchant recycling operation. The specific on-site units which are associated with the copper etchant recycling operation and still operated by MacDermid, Inc. are as follows:

<sup>1</sup> 180 days prior to Permit No. HWM-151-028 expiration date.

- Main Container Storage Area;
- Quality Control (QC) Waste Staging Area;
- Bulk Tank Storage Area; and
- Spent Copper Etchant Recycling Area.

Presented under this document is a summary of the RCRA closure activities completed to date at the following former 1994 permitted storage/recycling areas:

- Flammable Material Storage Area;
- Spent NMP Recycling Area; and
- Spent Solder Stripper Recycling Area.

The Combustible Storage Area was closed by MacDermid, Inc. The results of the closure activities for this former hazardous waste storage area will be included in a separate report.

The metal hydroxide/sulfide storage area is still in use. Based on MacDermid, Inc.'s review of the process wastewaters received in the on-site wastewater treatment system, the generated sludge does not meet the definition of an F006 sludge. Therefore, since the generated sludge is not a characteristic hazardous waste (see Appendix A), the generated sludge should have always been managed as a Connecticut Regulated Waste and should not be subjected to RCRA closure.



## 2.0 RCRA CLOSURE ACTIVITIES

In order to ensure the former hazardous waste storage and recycling areas (i.e. Flammable Storage Area, Spent NMP Recycling Area, and Spent Solder Stripper Recycling Area) located at MacDermid, Inc.'s Huntingdon Avenue facility were closed in a manner that is protective of human health and the environment, HRP Associates, Inc. (HRP) was contracted to perform closure activities in accordance with the CT-DEP approved 1994 Closure Plan. Presented in Subsections 2.1 through 2.5 of this report are descriptions of the following closure activities:

- Identification of Constituents of Concern (COCs);
- Development of Closure Standards;
- Inspection for Floor Cracks and Gaps;
- Sampling and Analysis of Subsurface for COCs; and
- Sampling and Analysis of Floor Surface for COCs.

As indicated in Section 3.0, it is HRP's opinion that MacDermid's goal of clean closure has been achieved in the former Flammable Storage Area. As for the former NMP Recycling Area, it is HRP's opinion that MacDermid's goal of clean closure will be achieved following the removal and disposal of approximately 5 yd<sup>3</sup> of contaminated concrete. As for the former Solder Stripper Recycling Area, it is HRP's opinion that MacDermid's goal of clean closure will be achieved following completion of the following closure activities:

- Removal and disposal of approximately 1.5 yd<sup>3</sup> of contaminated concrete;
- Removal and disposal of approximately 1.5 yd<sup>3</sup> of contaminated soil; and
- Collection and analysis of confirmatory soil samples along the western boundary of the excavated soil area (on-site equipment limited sampling access).

The proposed removal areas are located in high traffic (forklifts, personnel, etc.) manufacturing areas. Therefore, since these removal activities will impact manufacturing operations and the detected contamination does not appear to pose any immediate threat to human health or the environment, MacDermid, Inc. requests CT-DEP comments prior to conducting any removal activity.

## 2.1 Identification of Constituents of Concern

Presented in Table 13.1 of the CT-DEP approved 1994 Closure Plan is a list of the hazardous constituents identified for each storage and recycling area at the Huntingdon Avenue facility. Included in Table 13.1 is also a listing of the known 1994 health and environmental based closure performance standards (i.e., clean closure standards) for each identified hazardous constituent. A copy of Table 13.1 is provided in Appendix B.

In order to identify any additional hazardous constituent managed within each storage/recycling area, Sections 13.4.1.3 (Step 2) and 13.4.2.3 (Step 2) of the 1994 Closure Plan required the collection and analysis of a concrete floor sample for all the hazardous constituents listed under Appendix IX of 40 CFR Part 264. Listed below is the sampling procedure followed in December 1999 to collect representative concrete samples from the Flammable Storage Area, the former NMP Recycling Area and the former Solder Stripper Recycling Area for this analysis.

- Step 1: Divided the base of each storage/recycling area into 20 equal grids.
- Step 2: Used a random number generator to select three (3) sampling grids. Selected a fourth sampling grid using professional judgment (e.g. stained area).
- Step 3: Because the concrete base was coated with an epoxy paint, an electric rotohammer was used to remove the epoxy paint at each selected sampling grid.
- Step 4: The electric rotohammer was used to break up the top ¼" (approximate) of concrete from each selected sampling grid.
- Step 5: Decontaminated the electric rotohammer between each selected sampling grid using the procedure listed in Section 13.4.3.2 (Step 3) of the 1994 Closure Plan.
- Step 6: Placed the concrete chip samples from each selected sampling location into two 8 oz. jars; one jar was filled to the top and sealed and the other was half-filled for headspace analysis.
- Step 7: To determine which sample for each storage/recycling area would be submitted for analysis of the volatile constituents listed under 40 CFR Part 264, Appendix IX, a Photoionization Detector (PID)

was utilized. The headspaces of the four (4) half-full jars collected from each storage/recycling area were analyzed with the PID. The matching full jar for the sample (i.e. half-full jar) exhibiting the highest headspace contamination was submitted to the laboratory for analysis of the Volatile Constituents listed under 40 CFR 264, Appendix IX.

**Step 8:** The contents of the four (4) half-full jars collected from each storage/recycling area were thoroughly mixed and placed into another 8 oz. jar (full jar) for analysis of non-volatile constituents listed under 40 CFR Part 264, Appendix IX.

**Step 9:** The samples were submitted to a certified laboratory for analysis. All samples were accompanied with a chain-of-custody.

Based on the December 1999 Appendix IX sampling results (see Appendix C), the following additional hazardous constituents or "constituents of concern" were identified for each storage/recycling area undergoing closure:

Former Flammable Storage Area	Former NMP Recycling Area	Former Solder Stripper Recycling Area
Sulfide Acetone 1,4-Dioxane 4-methyl-2-pentanone (MIBK) Bis(2-ethylhexyl)phthalate Di-n-butylphthalate	Arsenic Sulfide Acetone Benzyl Alcohol Bis(2-ethylhexyl)phthalate	Sulfide Acetone 1,4-Dioxane MIBK Bis(2-ethylhexyl)phthalate Butyl Benzyl phthalate Di-n-butylphthalate Di-n-octylphthalate

## 2.2 Development of Closure Standards

Listed in Table 13.1 of the 1994 Closure Plan (see Appendix B) are closure standards for approximately 80% of the listed constituents of concern (COCs). For the 1994 COCs without closure standards and the additional COCs detected in the Appendix IX analysis (see Section 2.1), the closure standards were obtained from Section 22a-133k of the Regulations of Connecticut State Agencies (RCS) or calculated using the equation listed in Section 22a-133k of the RCS. Calculated closure standards are provided in Appendix D.

Summarized in Tables 1, 2, and 3 are the closure standards for a storage or recycling area undergoing closure. All tables are provided at the end of the report.

## 2.3 Inspections for Floor Cracks and Gaps

On December 2, 1999, HRP personnel inspected the concrete floor of each storage/recycling area undergoing closure for cracks, gaps or similar features. The purpose of this inspection was to determine if any potential pathways existed for the migration of hazardous constituents to the subsurface. The results of these inspections are summarized below:

- No cracks, gaps or similar features were identified in the former Flammable Storage Area;
- Two (2) suspect areas were identified in the Former NMP Recycling Area; and
- Two (2) suspect areas were identified in the former Solder Stripper Recycling Area.

The locations of the identified suspect areas are shown on Figure 3.

## 2.4 Subsurface Investigations

On January 13, 2000, HRP performed subsurface investigations in each suspect area identified in the former NMP and Solder Stripper Recycling Areas (see Section 2.3). In accordance with Sections 13.4.1.3 (Steps 8-10), 13.4.2.3 (Steps 10 and 11) and 13.4.3.4 of the 1994 Closure Plan, HRP used a concrete core drill to reach the next sub-grade level. To prevent cross-contamination between sampling points, the concrete core drill was decontaminated as outlined under step 4 of Section 13.4.3.4. Summarized below are the results of this investigation.

Area	Sampling Location	Results
Former NMP Recycling Area	013	A second concrete slab was encountered beneath the concrete floor. A concrete sample was collected from the second slab and submitted for analysis of all parameters listed under Table 3 by mass analysis. All metals listed under Table 3 were also analyzed by the EP Toxicity procedure (i.e., leachate).
Former NMP Recycling Area	014	A second concrete slab was encountered beneath the concrete floor. A concrete sample was collected from the second slab and submitted for analysis of all parameters listed under Table 3 by mass analysis. All metals listed under Table 3 were also analyzed by the EP Toxicity procedure (i.e., leachate).

Area	Sampling Location	Results
Former Solder Stripper Recycling Area	004	A soil sample was collected directly beneath the concrete floor. The soil sample was submitted for analysis of all parameters listed under Table 2 by mass analysis. All metals listed under Table 2 were also analyzed by the EP Toxicity procedure.
Former Solder Stripper Recycling Area	012	A second concrete slab was encountered beneath the concrete floor. A concrete sample was collected from the second slab and submitted for analysis of all parameters listed under Table 2 by mass analysis. All metals listed under Table 2 were also analyzed by the EP Toxicity procedure.

The sampling locations are shown on Figure 3.

Summarized in Table 4 are the closure standard exceedances detected in the January 13, 2000 subsurface samples. To determine if a non-metal constituent exceeded its leachate standard, its mass concentration was divided by 20 to generate an assumed leachate concentration. This very conservative approach assumes that all of the detected non-metal contamination will leach out of the concrete or soil sample. The results of these calculated concentration are listed in Table 4 under the column "Computed Leachate". A copy of the laboratory report is provided in Appendix E.

As indicated in Table 4, both recycling areas exhibited metal concentrations (e.g., cadmium chromium, copper, and lead) above their respective closure standards. Sample 004, which was collected in the former Solder Stripper Recycling Area, also exhibited a calculated trichloroethylene leachate concentration above its closure standards.

In accordance with Section 13.4.6 of the 1994 Closure Plan, equipment and trip blank samples were prepared and submitted with the January 13, 2000 concrete and soil samples for analysis. The equipment blank sample consisted of deionized water that was transported to the site, opened in the field, poured over the concrete core drill and collected in a sample container. The trip blank consisted of deionized water that was transported to the site and stored with the collected concrete and soil samples (i.e., not opened in the field). The equipment and trip blank samples were collected and analyzed to monitor field sampling quality control (QC) activities and to ensure the accuracy and validity of the analytical results.

As shown in Table 4 and Appendix E, the equipment and trip blank samples exhibited only low concentrations of zinc and acetone. Based on these results, it appears proper QC procedures were followed in the field and the results presented in Table 4 and Appendix E are accurate.

Presented in Sections 2.4.1 and 2.4.2 are the additional subsurface investigations performed in the former NMP and Solder Stripper Recycling Areas, respectively.

#### **2.4.1 Former NMP Recycling Area – Additional Subsurface Investigations**

In efforts to determine if the contamination detected in concrete samples 013 and 014 was limited to the surface of the second concrete slab or extended through the second concrete slab, HRP instructed the laboratory on February 9, 2000 to analyze the bottom portion of the concrete core collected and submitted to the laboratory on January 13, 2000. The concrete samples 013b and 014b were analyzed for the parameters detected above the closure standards in samples 013 and 014 (see Table 4), respectively.

As indicated in Table 5, both concrete samples exceeded the chromium leachate closure standard of 0.05 mg/l. A copy of the laboratory report, which includes equipment and trip blanks analyses, is provided in Appendix F.

To determine if the soil beneath concrete samples 013b and 014b had been impacted, HRP instructed the laboratory on April 27, 2000 to analyze the soil samples submitted on January 13, 2000 for future analysis. Soil samples 001 and 002 were analyzed for total chromium by the EP Toxicity procedure.

As indicated in Table 5, the soil beneath the second concrete slab in the former NMP Recycling Area had not been impacted. Therefore, no further subsurface investigations were performed in this recycling area. However, to determine the horizontal extent of concrete contamination, surface concrete chip sampling was performed (see Section 2.5.2). A copy of the laboratory report, which includes equipment and trip blank analyses, is provided in Appendix G.

#### 2.4.2 Former Solder Stripper Recycling Area – Additional Investigations

In an effort to determine the extent of soil/concrete contamination in the area of samples 004 and 012, the samples listed below were collected by HRP on February 9, 2000. Each sample collected in the area of sample 004 (i.e., B001-B007), was analyzed for all the 004 parameters listed in Table 4 (i.e. the parameters detected above closure standards). The samples collected in the area of sample 012 (i.e., B010-B012 and 003) were analyzed for all of the 012 parameters listed in Table 4.

Sample Number	Type of Sample	Location
B001	Soil (directly beneath concrete slab)	2' NE of 004
B002	Soil	1' below soil sample B001
B003	Soil (directly beneath concrete slab)	2' SW of 004
B004	Soil	1' below soil sample B003
B005	Soil (directly beneath concrete slab)	2' NW of 004
B006	Soil	1' below soil sample B005
B007	Soil	1' below soil sample 004
B010	Concrete (2 <sup>nd</sup> concrete slab)	2' SE of 012
B011	Concrete (2 <sup>nd</sup> concrete slab)	2' NW of 012
B012	Concrete (2 <sup>nd</sup> concrete slab)	2' E of 012
003	Soil (directly beneath concrete slab)*	Below concrete sample 012
*Soil sample was collected and submitted to the laboratory on 1/13/00. Laboratory was instructed to analyze this sample on 2/9/00.		

To reach the subsurface soil and second concrete slab, a concrete core drill was used. As discussed previously, the concrete core drill was decontaminated after each sample. The sampling locations are shown on Figure 3.

Summarized in Table 6 are the sampling results (including equipment and trip blank samples) for the February 9, 2000 sampling event. A copy of the laboratory report is provided in Appendix F.

As indicated in Table 6, closure exceedances were detected in soil samples B001, B003, B005, B007, and 003 and concrete samples B010, B011, and B012. In an effort to determine the extent of soil/concrete contamination in these areas, a second set of soil/concrete samples was collected in the areas listed below during the time period of April 26-28, 2000.

Sample Number	Type of Sample	Location
B007A	Soil	2' below soil sample 004
B013A	Soil (directly beneath concrete slab)	4' NE of soil sample 004
B013B	Soil	1' below soil sample B013A
B014A	Soil (directly beneath concrete slab)	4' NW of soil sample B001
B014B	Soil	1' below soil sample B014A
B015A	Soil (directly beneath concrete slab)	4' NW of soil sample 004
B015B	Soil	1' below soil sample B015A
B016A	Soil (directly beneath concrete slab)	4' NW of soil sample B003
B016B	Soil	1' below soil sample B016A
B017A	Soil (directly beneath concrete slab)	1.5' S of soil sample B016A
B017B	Soil	1' below soil sample B017A
B018A	Soil (directly beneath concrete slab)	3' SE of soil sample 004
B018B	Soil	1' below soil sample B018A
B019A	Soil (directly beneath concrete slab)	1' below soil sample 003
B020A	Concrete (2 <sup>nd</sup> concrete slab)	3.5' SE of concrete sample 012
B021A	Concrete (2 <sup>nd</sup> concrete slab)	4' NE of concrete sample B020A
B022A	Concrete (2 <sup>nd</sup> concrete slab)	4' NE of concrete sample 012
B023A	Soil (directly beneath concrete slab)	4' NW of concrete sample B022A
B024A	Concrete (2 <sup>nd</sup> concrete slab)	4' NW of concrete sample 012

Summarized in Tables 7 and 8 are the sampling results for the April 26-28, 2000 sampling events (including equipment and trip blank samples). Soil samples B007 and B013 through B018 were analyzed for the parameters detected above their closure standards in sample 004 (see Table 4). Concrete/soil samples B019 through B024 were analyzed for the parameters detected above their closure standards in sample 012 (see Table 4). A copy of the laboratory report is provided in Appendix G. The sampling locations are shown on Figure 3.

As indicated in Table 7, the only soil samples that exceeded the closure standards in the area of sample 004 were B016B and B017B. Soil sample B016B exhibited a cadmium leachate concentration slightly above the closure standard of 0.01 mg/l. Soil samples B017B slightly exceeded the cadmium direct exposure and leachate closure standards.

Review of Table 8 shows that all samples collected in the area of sample 012 exceeded one (1) or more closure standard. To determine if the soil beneath concrete samples B020A, B021A, B022A, and B024B had been impacted, HRP instructed the laboratory to analyze the soil samples listed below on June 13, 2000. These soil samples were col-



lected and submitted to the laboratory for future analysis on April 27, 2000. Sampling locations are shown on Figure 3.

Sample Number	Type of Sample	Location
B020B	Soil	Directly beneath concrete sample B020A
B021B	Soil	Directly beneath concrete sample B021A
B022B	Soil	Directly beneath concrete sample B022A
B024B	Soil	Directly beneath concrete sample B024A

Summarized in Table 9 are the June 13, 2000 sampling results. As indicated in Table 8, the only closure exceedance was detected in soil sample B020B. Soil sample B020B slightly exceeded the cadmium leachate closure standard of 0.01 mg/l. A copy of the laboratory report is provided in Appendix H.

For the reason stated below, it is HRP's opinion that the degree and extent of soil and second concrete slab contamination have been defined in the former Solder Stripper Recycling Area. The proposed soil and concrete removal areas are described in Section 3.2.

Based on MacDermid, Inc.'s review of the former solder stripper recycling operation, no cadmium or cadmium compounds were ever used in this recycling operation. Provided in Appendix I is a copy of the solder stripper's fingerprint specification dated September 6, 1989, which indicates no cadmium concentration. The cadmium exceedances are believed to be associated with the former ball bearing manufacturing operation, which was conducted at this facility, before MacDermid's occupancy. Therefore, for the purpose of determining the degree and extent of concrete and soil contamination within this former recycling area, the cadmium exceedances have not been considered.

## 2.5 Surface Concrete Floor

To determine if the concrete floor (base) of the storage/recycling areas undergoing closure were impacted from former hazardous waste management activities, concrete chip samples were collected for analysis. In accordance with Sections 13.4.1.3 (Step 6), 13.4.2.3 (Step 12) and 13.4.3.3 of the 1994 Closure Plan, the sampling procedure listed below was followed:

- Step 1: Divided the base of each storage/recycling area into 15 to 20 equal grids.
- Step 2: Used a random number generator to select four (4) sampling grids. Selected a fifth sampling grid using judgment (e.g., stained area).
- Step 3: If the concrete base was coated with an epoxy paint, an electric rotohammer was used to remove the epoxy paint at each selected sampling grid.
- Step 4: If the concrete base was not coated with an epoxy paint, the sampling grid was power-washed using clean water only. Due to high traffic (e.g., forklifts, personnel, etc.) received within the areas undergoing closure, power-washing of the entire floor was not performed.
- Step 5: Used the electric rotohammer to break up the top 1/4" (approximate) of concrete from each selected sampling grid.
- Step 6: Stored the concrete samples collected from each selected sampling grid in separate glass jars.
- Step 7: Decontaminated the electric rotohammer between sampling grids using the procedure listed in Section 13.4.3.3 (Step 4) of the 1994 Closure Plan.
- Step 8: Submitted the samples to a certified laboratory for analysis. All samples were accompanied with a chain-of-custody.

The results of the concrete chip sampling activities for each storage/recycling area undergoing closure are presented in Sections 2.5.1 through 2.5.3.

#### **2.5.1 Former Flammable Storage Area**

On January 13, 2000, HRP collected five (5) concrete chip samples from the former Flammable Storage Area. The locations of the selected sampling grids are shown on Figure 3.

As illustrated in Table 10, the concrete sample collected from grid 005 exhibited calculated tetrachloroethylene and trichloroethylene leachate concentrations above their closure standards. Sample 007 exhibited a chromium leachate concentration above the closure standard of 0.05 mg/l. Samples 006, 008, and 009 exhibited concentrations at or below all closure standards listed in Table 1. A copy of the laboratory report is provided in Appendix E.

To determine if the goal of clean closure could be achieved at this former storage area, the area surrounding samples 005 and 007 were power-washed and re-sampled on February 9, 2000. Sample CC008, which was collected adjacent to sample 005, was analyzed for tetrachloroethylene and trichloroethylene by the Toxicity Characteristic Leaching Procedure (TCLP). Sample CC009, which was collected adjacent to sample 007, was analyzed for chromium by the EP Toxicity procedure.

As indicated in Table 10, only sample CC008 exhibited a concentration above a closure standard (TCLP tetrachloroethylene). A copy of the laboratory report is provided in Appendix F.

The area adjacent to sample 005 was power-washed a second time on April 26, 2000. Sample CC010, which was collected adjacent to samples 005 and CC008, was analyzed for tetrachloroethylene by TCLP (see Figure 3). As indicated in Table 10, the goal of clean closure was achieved for this former storage area. A copy of the laboratory report for sample CC010 is provided in Appendix G.

## 2.5.2 Former NMP Recycling Area

To determine the degree and extent of surface concrete contamination at the former NMP Recycling Area, HRP collected a total of thirteen (13) concrete chip samples on August 10, 2000 using the procedure described in Section 2.5. Each sample was analyzed for the parameters listed in Table 3 by mass analysis. All metals listed in Table 3 were also analyzed by the EP Toxicity procedure. Selected sampling locations, which are shown on Figure 4, were determined as follows:

Sample Number	Sampling Locations Determination
CC011-CC-014	Selected using a random number generator (Section 13.4.3.3 of 1994 Closure Plan).
CC015	Selected judgmental – stained/corroded areas (Section 13.4.3.3 of 1994 Closure Plan).
CC021-CC024	Approximately 2' north, south, east, and west of sample 014. Designed to determine the horizontal extent of concrete contamination in this area (see Section 2.4.1).
CC025-CC028	Approximately 2' north, south, east, and west of sample 013. Designed to determine the horizontal extent of concrete contamination in this area (see Section 2.4.1).
W001	Trip Blank
W002	Equipment Blank

Summarized in Table 11 are the closure exceedances detected in the August 10, 2000 concrete chip samples. A copy of the laboratory report is provided in Appendix J.

As indicated in Table 11, nine of the thirteen concrete chip samples exceeded one or more closure standards. The primary contaminant was leachate chromium.

In an effort to determine the horizontal degree of concrete contamination in this former recycling area, a second set of concrete chip samples was collected in the areas listed below on October 3, 2000. Sampling locations are shown on Figure 4.

Sample Number	Location
CC029	Approximately 5' north of sample 013
CC030	Approximately 5' east of sample 013
CC031	Approximately 5 south of sample 013
CC032	Approximately 5' west of sample 014
CC033	Approximately 5' north of sample 014
CC034	Approximately 8' north of sample CC011
CC035	Approximately 8' east of sample 014
CC036	Approximately 3' south of sample CC011
CC037	Approximately 5' south of sample 014
W001	Trip Blank
W002	Equipment Blank

Summarized in Table 11 are the closure exceedances detected in the October 3, 2000 concrete chip samples. Each October 3, 2000 concrete sample was analyzed for parameters listed below. These parameters were detected in one or more August 10, 2000 concrete samples above their closure standard. A copy of the laboratory report is provided in Appendix K.

- Chromium (leachate)
- Nickel (leachate)
- Zinc (leachate)
- Bis(2-ethylhexyl)phthalate (mass)

Based on results presented in Table 11 and Appendices J and K, it is HRP's opinion that the horizontal extent of concrete contamination in the former NMP Recycling Area has been defined. The proposed concrete removal area is presented in Section 3.1.

### 2.5.3 Former Solder Stripper Recycling Area

To determine the degree and extent of surface concrete contamination at the former Solder Stripper Recycling Area, HRP collected a total of five (5) concrete chip samples on August 10, 2000 using the procedure described in Section 2.5. Four of the sampling sites were selected using a random number generator. The fifth sampling site (CC020) was selected judgmentally (stained, corroded area). Each sample was analyzed for the parameters listed in Table 2 by mass analysis. All metals listed in Table 2 were also analyzed by the EP Toxicity procedure. Sampling locations are shown on Figure 5.

Summarized in Table 12 are the results of the August 10, 2000 sampling event. As indicated in Table 12, no closure standard exceedances were detected. A copy of the laboratory report is provided in Appendix J.

It is HRP's opinion that the concrete floor surface of the former Solder Stripper Recycling Area has not been impacted by former hazardous waste management activities. To achieve the goal of clean closure, the removal activities presented in Section 3.2 are recommended.

### 3.0 PROPOSED REMEDIAL CLOSURE ACTIVITIES

Based on the results presented in Section 2.0, the goal of clean closure has been achieved at the former Flammable Storage Area. To achieve the goal of clean closure in the former NMP and Solder Stripper Recycling Areas, the remedial closure activities listed in Section 3.1 and 3.2 are proposed, respectively.

#### 3.1 Former NMP Recycling Area

##### Recommendations for Soil:

Since both subsurface soil samples (001, 002) exhibited leachate chromium concentrations below the clean closure standard, it is HRP's opinion that no further subsurface investigations are required in this area (i.e., subsurface soil has not been impacted). The locations of the subsurface samples are shown in red on Figure 6.

##### Recommendations for Concrete:

As illustrated on Figure 6, there have been exceedances of chromium (leachate), zinc (leachate), nickel (leachate), and bis(2-ethylhexyl) phthalate (mass) in two (2) areas located in the southern portion of the former NMP Recycling Area.

In order to achieve the goal of clean closure, HRP recommends removing the following amount of concrete:

- Between sampling points CC029 and CC031 and approximately four (4) feet east of sampling point CC030; and
- Between sampling CC015, the eastern wall and the southern wall and approximately 3 feet west of sampling point CC032.

The proposed areas of concrete removal are outlined on Figure 7. The area of concrete removal is estimated to be 375 ft<sup>2</sup> (approximately 5 yd<sup>3</sup>).

#### 3.2 Former Solder Stripper Recycling Area

##### Recommendations for Soil:

As illustrated on Figure 8, there have been exceedances of various closure parameters (excluding cadmium) at 004, B001, B003, B005, and B007. The soil samples collected at B001, B003, and B005 indicate that the depth of soil contamination is limited to one (1) foot below the concrete floor. In the area of soil samples 004 and B007, which were collected at the same location but at different depths, the depth of soil contamination extends to a depth of two (2) feet. These soil samples exhibited concentrations of the following contaminants

above their clean closure standards: chromium (leachate), tin (leachate), trichloroethylene (leachate), copper (leachate and solid), and lead (solid).

In order to achieve the goal of clean closure, HRP recommends removing the following amount of soil:

- Between sampling points B001, B003, and B005, remove soil to a depth of 2 feet (approximately 0.75 yd<sup>3</sup>); and
- Approximately 2' beyond sampling points B003 and B005 and 0.75' feet beyond sampling point B001, remove soil to a depth of 1 foot (approximately 0.7 yd<sup>3</sup>).

The proposed areas of soil removal are outlined on Figure 9.

The extent of contaminated soil along the western boundary (see Figure 9) has not been confirmed, due to the storage of on-site equipment (sampling access was limited). Therefore, confirmatory soil samples will need to be collected along the western edge of the excavation and analyzed to verify that all contaminated soil (i.e. above clean closure standards) has been removed.

#### **Recommendations for Concrete:**

As indicated on Figure 10, there have been exceedances of nickel (solid) in concrete chip samples B011, B012, B021A, and 012 (excluding cadmium). All nickel exceedances were detected in the second slab of concrete, which is located directly beneath the top or primary slab of concrete. The top and second slabs are approximately four (4) and two (2) inches thick, respectively.

In order to achieve the goal of clean closure, HRP recommends removing the following amount of concrete:

- Between sampling points B020, B022, B023, and B024 and at least 1.5' around the perimeter of sampling point B021; and
- Above the proposed soil removal area.

The proposed areas of concrete removal are outlined on Figure 11. The area of concrete removal is estimated to be 75 ft<sup>2</sup> (approximately 1.5 yd<sup>3</sup>).

## TABLES



TABLE 1  
CLOSURE STANDARDS FOR THE FLAMMABLE STORAGE AREA  
MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT  
(HRP #MAC-0030.RC)

Parameter		Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)
1.	Barium	900	1.0
2.	Cadmium	34 <sup>2</sup>	0.01
3.	Chromium, Total	20,000	0.05
4.	Copper	2,500 <sup>2</sup>	1.0
5.	Lead	500 <sup>2</sup>	0.05
6.	Nickel	300	0.7
7.	Tin	40,645 <sup>3</sup>	4.2 <sup>3</sup>
8.	Zinc	20,000 <sup>2</sup>	5.0
9.	Cyanide	300	0.2
10.	Sulfide <sup>1</sup>	No Standard Available	No Standard Available
11.	Acetone <sup>1</sup>	500 <sup>2</sup>	140 <sup>5</sup>
12.	2-Butanone (MEK)	900	1.0
13.	Chlorobenzene	500	0.1
14.	1,4-Dioxane <sup>1</sup>	745 <sup>3</sup>	15 <sup>3,4</sup>
15.	Ethyl Benzene	500 <sup>2</sup>	0.1
16.	Isobutanol	5,000	10.0
17.	Methylene Chloride	47	0.0047
18.	4-Methyl-2-Pentanone <sup>1</sup> (MIBK)	500 <sup>2</sup>	14 <sup>5</sup>
19.	Tetrachloroethylene	69	0.0069
20.	Toluene	5,000	1.0
21.	1,1,1-Trichloroethane	2,000	0.2
22.	Trichlorofluoromethane	5,000	10.0
23.	Trichloroethylene	32	0.0032
24.	Xylene	500 <sup>2</sup>	19.5 <sup>5</sup>
25.	Bis (2-ethylhexyl) phthalate <sup>1</sup>	44 <sup>2</sup>	11 <sup>5</sup>
26.	Di-n-butylphthalate <sup>1</sup>	1,000 <sup>2</sup>	140 <sup>5</sup>

NOTES:

Parameters and closure standards with no footnotes were listed in the 1994 CT DEP Approved Closure Plan

<sup>1</sup> Identified in December 1999 Appendix IX Sample.

<sup>2</sup> Residential Direct Exposure Criteria for Soil, CT Remediation Standard Regulation.

<sup>3</sup> Calculated Standard (see Appendix D)

<sup>4</sup> Calculated Standard units are in mg/kg.

<sup>5</sup> GB Pollutant Mobility Criteria for Soil, CT Remediation Standard Regulation (units are in mg/kg).

**TABLE 2**  
**CLOSURE STANDARDS FOR THE SOLDER STRIPPER RECYCLING AREA**  
MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT  
(HRP #MAC-0030.RC)

Parameter		Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)
1.	Barium	900	1.0
2.	Cadmium	34 <sup>2</sup>	0.01
3.	Chromium, Total	20,000	0.05
4.	Copper	2,500 <sup>2</sup>	1.0
5.	Lead	500 <sup>2</sup>	0.05
6.	Nickel	300	0.7
7.	Tin	40,645 <sup>3</sup>	4.2 <sup>3</sup>
8.	Zinc	20,000 <sup>2</sup>	5.0
9.	Cyanide	300	0.2
10.	Sulfide <sup>1</sup>	No Standard Available	No Standard Available
11.	Acetone <sup>1</sup>	500 <sup>2</sup>	140 <sup>5</sup>
12.	2-Butanone (MEK)	900	1.0
13.	Chlorobenzene	500	0.1
14.	1,4-Dioxane <sup>1</sup>	745 <sup>3</sup>	153 <sup>4</sup>
15.	Ethyl Benzene	500 <sup>2</sup>	0.1
16.	Isobutanol	5,000	10.0
17.	Methylene Chloride	47	0.0047
18.	4-Methyl-2-Pentanone <sup>1</sup> (MIBK)	500 <sup>2</sup>	14 <sup>5</sup>
19.	Tetrachloroethylene	69	0.0069
20.	Toluene	5,000	1.0
21.	1,1,1-Trichloroethane	2,000	0.2
22.	Trichlorofluoromethane	5,000	10.0
23.	Trichloroethylene	32	0.0032
24.	Xylene	500 <sup>2</sup>	19.5 <sup>5</sup>
25.	Bis (2-ethylhexyl) phthalate <sup>1</sup>	44 <sup>2</sup>	11 <sup>5</sup>
26.	Butyl benzylphthalate <sup>1</sup>	1,000 <sup>2</sup>	200 <sup>5</sup>
27.	Di-n-butylphthalate <sup>1</sup>	1,000 <sup>2</sup>	140 <sup>5</sup>
28.	Di-n-octylphthalate <sup>1</sup>	1,000 <sup>2</sup>	20 <sup>5</sup>

**NOTES:**

Parameters and closure standards with no footnotes were listed in the 1994 CT DEP Approved Closure Plan

<sup>1</sup> Identified in December 1999 Appendix IX Sample.

<sup>2</sup> Residential Direct Exposure Criteria for Soil, CT Remediation Standard Regulation.

<sup>3</sup> Calculated Standard (see Appendix D)

<sup>4</sup> Calculated Standard units are in mg/kg.

<sup>5</sup> GB Pollutant Mobility Criteria for Soil, CT Remediation Standard Regulation (units are in mg/kg).

**TABLE 3**  
**CLOSURE STANDARDS FOR THE NMP RECYCLING AREA**  
 MacDermid, Inc.  
 526 Huntingdon Avenue  
 Waterbury, CT  
 (HRP #MAC-0030.RC)

Parameter		Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)
1.	Arsenic <sup>1</sup>	10 <sup>2</sup>	0.5 <sup>5</sup>
2.	Barium	900	1.0
3.	Cadmium	34 <sup>2</sup>	0.01
4.	Chromium, Total	20,000	0.05
5.	Copper	2,500 <sup>2</sup>	1.0
6.	Lead	500 <sup>2</sup>	0.05
7.	Nickel	300	0.7
8.	Tin	40,645 <sup>3</sup>	4.2 <sup>3</sup>
9.	Zinc	20,000 <sup>2</sup>	5.0
10.	Cyanide	300	0.2
11.	Sulfide <sup>1</sup>	No Standard Available	No Standard Available
12.	Acetone <sup>1</sup>	500 <sup>2</sup>	140 <sup>5</sup>
13.	2-Butanone (MEK)	900	1.0
14.	Benzyl Alcohol <sup>1</sup>	20,323 <sup>3</sup>	420 <sup>3,4</sup>
15.	Chlorobenzene	500	0.1
16.	Ethyl Benzene	500 <sup>2</sup>	0.1
17.	Isobutanol	5,000	10.0
18.	Methylene Chloride	47	0.0047
19.	Tetrachloroethylene	69	0.0069
20.	Toluene	5,000	1.0
21.	1,1,1-Trichloroethane	2,000	0.2
22.	Trichlorofluoromethane	5,000	10.0
23.	Trichloroethylene	32	0.0032
24.	Xylene	500 <sup>2</sup>	19.5 <sup>5</sup>
25.	Bis (2-ethylhexyl) phthalate <sup>1</sup>	44 <sup>2</sup>	11 <sup>5</sup>

**NOTES:**

Parameters and closure standards with no footnotes were listed in the 1994 CT DEP Approved Closure Plan

<sup>1</sup> Identified in December 1999 Appendix IX Sample.

<sup>2</sup> Residential Direct Exposure Criteria for Soil, CT Remediation Standard Regulation.

<sup>3</sup> Calculated Standard (see Appendix D)

<sup>4</sup> Calculated Standard units are in mg/kg.

<sup>5</sup> GB Pollutant Mobility Criteria for Soil, CT Remediation Standard Regulation (units are in mg/kg, except arsenic which is mg/l).

**TABLE 4**  
**JANUARY 13, 2000 SUBSURFACE CLOSURE STANDARD EXCEEDANCES**

MacDermid, Inc  
526 Huntingdon Avenue  
MAC-0030.RC

**Solder Stripper Recycling Area**  
**January 13, 2000**

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)	Computed Leachate*
004 - Solder St. 2 (soil below cracked slab)	Cadmium, Leachate	0.077 mg/l		0.01	
	Cadmium, Solid	49 mg/kg	34		
	Chromium, Leachate	1.3 mg/l		0.05	
	Copper, Leachate	5.9 mg/l		1	
	Copper, Solid	3000 mg/kg	2500		
	Lead, Solid	1300 mg/kg	500		
	Tin, Leachate	22 mg/l		4.2	
	Trichloroethylene	0.14 mg/kg	32	0.0032	0.007
012 - 2nd Slab (concrete slab beneath cracked slab)	Cadmium, Leachate	0.013 mg/l		0.01	
	Cadmium, Solid	76 mg/kg	34		
	Nickel, Solid	300 mg/kg	360		

**NMP Recycling Area**

Sample	Parameter	Result	Direct Exposure Standard (mg/l)	Leachate Standard (mg/l)	Computed Leachate*
013 - NMP 1 (concrete floor)	Chromium, Leachate	0.64 mg/l		0.05	
	Copper, Leachate	1.1 mg/l		1	
	Lead, Leachate	0.062 mg/l		0.05	
	Zinc, Leachate	8.6 mg/l		5	
014 - NMP 2 (concrete floor)	Chromium, Leachate	0.68 mg/l		0.05	
	Zinc, Leachate	7.3 mg/l		5	

**QA/QC Samples**

Sample	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)	Computed Leachate*
10 (Equipment Blank)	Zinc	0.026 mg/l			
	Acetone	0.005 mg/l			
	Note: All remaining parameters below laboratory detection limits.				
11 (Trip Blank)	Zinc	0.017 mg/l			
	Acetone	0.064 mg/l			
	Note: All remaining parameters below laboratory detection limits.				

\*Computed Leachate (mg/l) Concentration (result / 20)

**HRP**

*Associates Inc.*

**TABLE 5  
FEBRUARY 9 AND APRIL 27, 2000 SUBSURFACE SAMPLING RESULTS  
FOR THE FORMER NMP RECYCLING AREA**

MacDermid, Inc.  
546 Huntingdon Avenue  
Waterbury, CT

**HRP #MAC0030.RC**

***February 9, 2000 Sampling Results***

Sample	Parameter	Result (mg/l)	Direct Exposure Standard (mg/l)	Leachate Standard (mg/l)
013b - NMP 1 (lower half of concrete floor (1/13/00))	Chromium, Leachate	0.75		0.05
	Copper, Leachate	ND<0.01		1
	Lead, Leachate	ND<0.05		0.05
	Zinc, Leachate	0.02		5
014b - NMP 2 (lower half of concrete floor (1/13/00))	Chromium, Leachate	0.7		0.05
	Zinc, Leachate	0.016		5

***April 27, 2000 Sampling Results***

Sample	Parameter	Result <sup>1</sup>	Direct Exposure Standard (mg/l)	Leachate Standard (mg/l)
001 - NMP 1 (surface soil directly below sample 013b)	Chromium, Leachate	ND<0.02		0.05
002 - NMP 2 (surface soil directly below sample 014b)	Chromium, Leachate	ND<0.02		0.05

ND = Not Detected

Shaded result exceeds its closure standard

**TABLE 6**  
**FEBRUARY 9, 2000 SUBSURFACE SAMPLING RESULTS**  
**FOR THE FORMER SOLDER STRIPPER RECYCLING AREA**

MacDermid, Inc  
526 Huntingdon Avenue  
Waterbury, CT  
HRP #MAC-0030.RC

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/l)	Leachate Standard (mg/l)	Computed Leachate*
B001 - Solder St. 2 (surface soil 2' NE of 004)	Cadmium, Leachate	0.01 mg/l		0.01	
	Cadmium, Solid	10 mg/kg	34		
	Chromium, Leachate	0.26 mg/l		0.05	
	Copper, Leachate	0.97 mg/l		1	
	Copper, Solid	950 mg/kg	2500		
	Lead, Solid	79 mg/kg	500		
	Tin, Leachate	36 mg/l		4.2	
	Trichloroethylene	0.095 mg/kg	32	0.0032	0.00475
B002 - Solder St. 2 (soil 1' below B001)	Cadmium, Leachate	ND<0.010 mg/l		0.01	
	Cadmium, Solid	7 mg/kg	34		
	Chromium, Leachate	0.043 mg/l		0.05	
	Copper, Leachate	0.17 mg/l		1	
	Copper, Solid	500 mg/kg	2500		
	Lead, Solid	55 mg/kg	500		
	Tin, Leachate	2.6 mg/l		4.2	
	Trichloroethylene	0.015 mg/kg	32	0.0032	0.00075
B003 - Solder St. 2 (surface soil 2' SW of 004)	Cadmium, Leachate	ND<0.010 mg/l		0.01	
	Cadmium, Solid	35 mg/kg	34		
	Chromium, Leachate	ND<0.040 mg/l		0.05	
	Copper, Leachate	0.086 mg/l		1	
	Copper, Solid	450 mg/kg	2500		
	Lead, Solid	1700 mg/kg	500		
	Tin, Leachate	0.028 mg/l		4.2	
	Trichloroethylene	0.17 mg/kg	32	0.0032	0.0085
B004 - Solder St. 2 (soil 1' below B003)	Cadmium, Leachate	ND<0.010 mg/l		0.01	
	Cadmium, Solid	5.3 mg/kg	34		
	Chromium, Leachate	ND<0.040 mg/l		0.05	
	Copper, Leachate	0.12 mg/l		1	
	Copper, Solid	88 mg/kg	2500		
	Lead, Solid	42 mg/kg	500		
	Tin, Leachate	ND<0.020 mg/l		4.2	
	Trichloroethylene	ND<0.010mg/kg	32	0.0032	0.0005

**HRP**

*Associates, Inc.*

**TABLE 6**  
**FEBRUARY 9, 2000 SUBSURFACE SAMPLING RESULTS**  
**FOR THE FORMER SOLDER STRIPPER RECYCLING AREA**

MacDermid, Inc  
526 Huntingdon Avenue  
Waterbury, CT  
HRP #MAC-0030.RC

B005 - Solder St. 2 (surface soil 2' NW of 004)	Cadmium, Leachate	0.084 mg/l		0.01	
	Cadmium, Solid	7.6 mg/kg	34		
	Chromium, Leachate	0.94 mg/l		0.05	
	Copper, Leachate	14 mg/l		1	
	Copper, Solid	1400 mg/kg	2500		
	Lead, Solid	580 mg/kg	500		
	Tin, Leachate	19 mg/l		4.2	
	Trichloroethylene	0.046 mg/kg	32	0.0032	0.0023
B006 - Solder St. 2 (soil 1' below B005)	Cadmium, Leachate	ND<0.010 mg/l		0.01	
	Cadmium, Solid	5.8 mg/kg	34		
	Chromium, Leachate	ND<0.040 mg/l		0.05	
	Copper, Leachate	0.64 mg/l		1	
	Copper, Solid	370 mg/kg	2500		
	Lead, Solid	96 mg/kg	500		
	Tin, Leachate	0.24 mg/l		4.2	
	Trichloroethylene	ND<0.010mg/kg	32	0.0032	0.007
B007 - Solder St. 2 (soil 1' below original 004)	Cadmium, Leachate	ND<0.010 mg/l		0.01	
	Cadmium, Solid	5.2 mg/kg	34		
	Chromium, Leachate	0.07 mg/l		0.05	
	Copper, Leachate	0.92 mg/l		1	
	Copper, Solid	2100 mg/kg	2500		
	Lead, Solid	24 mg/kg	500		
	Tin, Leachate	0.58 mg/l		4.2	
	Trichloroethylene	ND<0.010mg/kg	32	0.0032	0.007

**TABLE 6**  
**FEBRUARY 9, 2000 SUBSURFACE SAMPLING RESULTS**  
**FOR THE FORMER SOLDER STRIPPER RECYCLING AREA**

MacDermid, Inc  
526 Huntingdon Avenue  
Waterbury, CT  
HRP #MAC-0030.RC

Sample (Type)	Parameter	Result (mg/l)	Direct Exposure Standard (mg/l)	Leachate Standard (mg/l)
B010 - 2nd Slab (concrete slab SE of original 012)	Cadmium, Leachate	0.029 mg/l		0.01
	Cadmium, Solid	75 mg/kg	34	
	Nickel, Solid	420 mg/kg	360	
B011 - 2nd Slab (concrete slab NW of original 012)	Cadmium, Leachate	0.028 mg/l		0.01
	Cadmium, Solid	85 mg/kg	34	
	Nickel, Solid	400 mg/kg	360	
B012 - 2nd Slab (concrete slab NE of original 012)	Cadmium, Leachate	0.18 mg/l		0.01
	Cadmium, Solid	110 mg/kg	34	
	Nickel, Solid	450 mg/kg	360	
3 (surface soil below original 012 (1/13/00))	Cadmium, Leachate	0.025 mg/l		0.01
	Cadmium, Solid	15 mg/kg	34	
	Nickel, Solid	72 mg/kg	360	
Trip Blank				
	Cadmium	ND<0.010 mg/l		
	Chromium	ND<0.040 mg/l		
	Copper	ND<0.030 mg/l		
	Lead	ND<0.050 mg/l		
	Nickel	ND<0.020 mg/l		
	Tin	ND<0.010 mg/l		
	Zinc	0.023 mg/l		
	Tetrachloroethylene	ND<0.0005 mg/l		
	Trichloroethylene	ND<0.005 mg/l		
Equipment Blank				
	Cadmium	ND<0.010 mg/l		
	Chromium	ND<0.040 mg/l		
	Copper	ND<0.030 mg/l		
	Lead	ND<0.050 mg/l		
	Nickel	ND<0.020 mg/l		
	Tin	ND<0.010 mg/l		
	Zinc	0.018 mg/l		
	Tetrachloroethylene	ND<0.0005 mg/l		
	Trichloroethylene	ND<0.005 mg/l		

ND = Not Detected

Shaded result exceeded the closure standard

**HRP**

*Associates, Inc.*



TABLE 7  
APRIL 23-28, 2000 SUBSURFACE SAMPLING RESULTS  
FOR THE FORMER  
SOLDER STRIPPER RECYCLING AREA  
(around original sample 004)  
MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT  
HRP #MAC0030.RC

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)	Computed/Leachate (mg/l) Concentration (result / 20)
B007A – Solder St. 2 (soil 2' below 004)	Chromium, Leachate	0.028 mg/l		0.05	
B013A – Solder St. 2 (surface soil 4' NE of 004)	Cadmium, Leachate	0.0074 mg/l		0.01	
	Cadmium, Solid	13 mg/kg	34		
	Chromium, Leachate	ND <0.02 mg/l		0.05	
	Copper, Solid	99 mg/kg	2500		
	Lead, Solid	48 mg/kg	500		
	Tin, Leachate	ND <0.01 mg/l		4.2	
	Trichloroethylene, Solid	0.0007 mg/kg	32	0.0032	0.000035 <sup>1</sup>
B013B – Solder St. 2 (soil 1' below B013A)	Cadmium, Leachate	0.0061 mg/l		0.01	
	Cadmium, Solid	13 mg/kg	34		
	Chromium, Leachate	ND <0.020 mg/l		0.05	
	Copper, Solid	86 mg/kg	2500		
	Lead, Solid	51 mg/kg	500		
	Tin, Leachate	0.027 mg/l		4.2	
	Trichloroethylene, Solid	0.0017 mg/kg	32	0.0032	0.000085 <sup>1</sup>
B014A – Solder St. 2 (surface soil 4' NW B001)	Cadmium, Leachate	0.0075 mg/l		0.01	
	Cadmium, Solid	8.2 mg/kg	34		
	Chromium, Leachate	ND <0.020 mg/l		0.05	
	Copper, Solid	72 mg/kg	2500		
	Lead, Solid	40 mg/kg	500		
	Tin, Leachate	ND <0.010 mg/l		4.2	
	Trichloroethylene, Solid	0.0052 mg/kg	32	0.0032	0.00026 <sup>1</sup>
B014B – Solder St. 2 (soil 1' below B014A)	Cadmium, Leachate	0.0067 mg/l		0.01	
	Cadmium, Solid	21 mg/kg	34		
	Chromium, Leachate	ND <0.020 mg/l		0.05	
	Copper, Solid	150 mg/kg	2500		
	Lead, Solid	60 mg/kg	500		
	Tin, Leachate	ND < 0.010 mg/l		4.2	
	Trichloroethylene, Solid	0.0055 mg/kg	32	0.0032	0.000275 <sup>1</sup>

TABLE 7 (continued)  
 APRIL 23-28, 2000 SUBSURFACE SAMPLING RESULTS  
 FOR THE FORMER  
 SOLDER STRIPPER RECYCLING AREA  
 (around original sample 004)  
 MacDermid, Inc.  
 526 Huntingdon Avenue  
 Waterbury, CT  
 HRP #MAC0030.RC

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)	Computed/ Leachate (mg/l) Concentration (result / 20)
015A – Solder St. 2 (surface soil 4' NW 004)	Cadmium, Leachate	0.006 mg/l		0.01	
	Cadmium, Solid	15 mg/kg	34		
	Chromium, Leachate	ND <0.020 mg/l		0.05	
	Copper, Solid	560 mg/kg	2500		
	Lead, Solid	61 mg/kg	500		
	Tin, Leachate	0.1 mg/l		42	
	Trichloroethylene, Solid	0.018 mg/kg	32	0.0032	0.0009 <sup>1</sup>
B015B – Solder St. 2 (soil 1' below B015A)	Cadmium, Leachate	0.0067 mg/l		0.01	
	Cadmium, Solid	16 mg/kg	34		
	Chromium, Leachate	ND <0.020 mg/l		0.05	
	Copper, Solid	380 mg/kg	2500		
	Lead, Solid	83 mg/kg	500		
	Tin, Leachate	ND <0.010 mg/l		4.2	
	Trichloroethylene, Solid	0.018 mg/kg	32	0.0032	0.0009 <sup>1</sup>
B016A – Solder St. 2 (surface soil 4' NW B003)	Cadmium, Leachate	0.0054 mg/l		0.01	
	Cadmium, Solid	18 mg/kg	34		
	Chromium, Leachate	ND <0.020 mg/l		0.05	
	Copper, Solid	210 mg/kg	2500		
	Lead, Solid	220 mg/kg	500		
	Tin, Leachate	0.015mg/l		4.2	
	Trichloroethylene, Solid	0.039 mg/kg	32	0.0032	0.00195 <sup>1</sup>
B016B – Solder St. 2 (soil 1' below B016A)	Cadmium, Leachate	0.015 mg/l		0.01	
	Cadmium, Solid	14 mg/kg	34		
	Chromium, Leachate	ND <0.020 mg/l		0.05	
	Copper, Solid	110 mg/kg	2500		
	Lead, Solid	95 mg/kg	500		
	Tin, Leachate	0.018 mg/l		4.2	
	Trichloroethylene, Solid	0.014 mg/kg	32	0.0032	0.0007 <sup>1</sup>

TABLE 7 (continued)  
APRIL 23-28, 2000 SUBSURFACE SAMPLING RESULTS  
FOR THE FORMER  
SOLDER STRIPPER RECYCLING AREA  
(around original sample 004)  
MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT  
HRP #MAC0030.RC

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)	Computed/Leachate (mg/l) Concentration (result / 20)
B017A – Solder St. 2 (surface soil 1.5' S of B016A)	Cadmium, Leachate	ND <0.005 mg/l		0.01	
	Cadmium, Solid	15 mg/kg	34		
	Chromium, Leachate	0.033 mg/l		0.05	
	Copper, Solid	210 mg/kg	2500		
	Lead, Solid	310 mg/kg	500		
	Tin, Leachate	ND <0.010 mg/l		4.2	
	Trichloroethylene, Solid	0.015 mg/kg	32	0.0032	0.00075 <sup>1</sup>
B017B – Solder St. 2 (surface soil 1' below B017A)	Cadmium, Leachate	0.016 mg/l		0.01	
	Cadmium, Solid	36 mg/kg	34		
	Chromium, Leachate	ND <0.02 mg/l		0.05	
	Copper, Solid	470 mg/kg	2500		
	Lead, Solid	150 mg/kg	500		
	Tin, Leachate	0.032 mg/l		4.2	
	Trichloroethylene, Solid	0.02 mg/kg	32	0.0032	0.001 <sup>1</sup>
B018A – Solder St. 2 (surface soil 3' SE of 004 – other side of wall)	Cadmium, Leachate	ND <0.005 mg/l		0.01	
	Cadmium, Solid	4.3 mg/kg	34		
	Chromium, Leachate	ND <0.02 mg/l		0.05	
	Copper, Solid	43 mg/kg	2500		
	Lead, Solid	44 mg/kg	500		
	Tin, Leachate	ND <0.010 mg/l		4.2	
	Trichloroethylene, Solid	ND <0.010 mg/kg	32	0.0032	0.0005 <sup>1</sup>
B018B – Solder St. 2 (soil 1' below B018A)	Cadmium, Leachate	0.0083 mg/l		0.01	
	Cadmium, Solid	3.6 mg/kg	34		
	Chromium, Leachate	0.024 mg/l		0.05	
	Copper, Solid	52 mg/kg	2500		
	Lead, Solid	20 mg/kg	500		
	Tin, Leachate	0.032 mg/l		4.2	
	Trichloroethylene, Solid	0.0042 mg/kg	32	0.0032	0.00021 <sup>1</sup>

ND = Not Detected

<sup>1</sup> Mass concentration (mg/kg) was divided by 20 to determine the maximum leachate concentration (mg/l).

**Shaded** result exceeded its closure standard.

TABLE 7 (continued)  
 APRIL 23-28, 2000 SUBSURFACE SAMPLING RESULTS  
 FOR THE FORMER  
 SOLDER STRIPPER RECYCLING AREA  
 (around original sample 004)  
 MacDermid, Inc.  
 526 Huntingdon Avenue  
 Waterbury, CT  
 HRP #MAC0030.RC

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)	Computed/ Leachate (mg/l) Concentration (result / 20)
Trip Blank	Cadmium	ND <0.005 mg/l			
	Copper	ND <0.001 mg/l			
	Lead	ND <0.05 mg/l			
	Nickel	ND <0.002 mg/l			
	Trichloroethylene	ND <0.005 mg/l			
	Tetrachloroethylene	ND <0.005 mg/l			
Equipment Blank	Cadmium	ND <0.005 mg/l			
	Copper	ND <0.001 mg/l			
	Lead	ND <0.05 mg/l			
	Nickel	ND <0.002 mg/l			
	Trichloroethylene	ND <0.005 mg/l			
	Tetrachloroethylene	ND <0.005 mg/l			

**TABLE 8**  
**APRIL 26-28 2000 SUBSURFACE SAMPLING RESULTS**  
**FOR THE FORMER SOLDER STRIPPER RECYCLING AREA**  
**(around original sample 012)**

MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT  
HRP #MAC0030.RC

Sample	Parameter	Result	Direct Exposure Standard	Leachate Standard
B019A – soil (soil 1' below original 012)	Cadmium, Leachate	0.02 mg/l		0.01 mg/l
B020A – 2 <sup>nd</sup> Slab (concrete slab 3.5' SE of original 012)	Cadmium, Leachate	0.04 mg/l		0.01 mg/l
	Cadmium, Solid	83 mg/kg	34 mg/kg	
	Nickel, Solid	360 mg/kg	360 mg/kg	
B021A – 2 <sup>nd</sup> Slab (concrete slab 4' NE of B020A)	Cadmium, Leachate	0.37 mg/l		0.01 mg/l
	Cadmium, Solid	75 mg/kg	34 mg/kg	
	Nickel, Solid	450 mg/kg	360 mg/kg	
B022A – 2 <sup>nd</sup> Slab (concrete slab 4' NE of original 012)	Cadmium, Leachate	0.029 mg/l		0.01 mg/l
	Cadmium, Solid	79 mg/kg	34 mg/kg	
	Nickel, Solid	320 mg/kg	360 mg/kg	
B023A – soil (surface soil 4' NW of B022A)	Cadmium, Leachate	0.011 mg/l		0.01 mg/l
	Cadmium, Solid	18 mg/kg	34 mg/kg	
	Nickel, Solid	130 mg/kg	360 mg/kg	
B024A – 2 <sup>nd</sup> Slab (concrete slab 4' NW of original 012)	Cadmium, Leachate	0.012 mg/l		0.01 mg/l
	Cadmium, Solid	58 mg/kg	34 mg/kg	
	Nickel, Solid	110 mg/kg	360 mg/kg	

Shaded result exceeded its closure standard.

TABLE 9  
JUNE 13 2000 SUBSURFACE SAMPLING RESULTS  
FOR THE FORMER SOLDER STRIPPER RECYCLING AREA  
(around original sample 012)  
MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT  
HRP #MAC0030.RC

Sample	Parameter	Result	Direct Exposure Standard	Leachate Standard
B020B – Soil (beneath concrete sample B020A)	Cadmium, Leachate	0.011 mg/l		0.01 mg/l
	Cadmium, Solid	3.1 mg/kg	34 mg/kg	
	Nickel, Solid	15 mg/kg	360 mg/kg	
	Nickel, Leachate	0.33 mg/l		0.7 mg/l
B021B – Soil (beneath concrete sample B021A)	Cadmium, Leachate	0.0077 mg/l		0.01 mg/l
	Cadmium, Solid	5.2 mg/kg	34 mg/kg	
	Nickel, Solid	25 mg/kg	360 mg/kg	
	Nickel, Leachate	0.02 mg/l		0.7 mg/l
B022B – Soil (beneath concrete sample B022A)	Cadmium, Leachate	<0.005 mg/l		0.01 mg/l
	Cadmium, Solid	5.1 mg/kg	34 mg/kg	
	Nickel, Solid	19 mg/kg	360 mg/kg	
	Nickel, Leachate	0.099 mg/l		0.7 mg/l
B024B – Soil (beneath concrete sample B024A)	Cadmium, Leachate	0.021 mg/l		0.01 mg/l
	Cadmium, Solid	3.5 mg/kg	34 mg/kg	
	Nickel, Solid	30 mg/kg	360 mg/kg	
	Nickel, Leachate	0.48 mg/l		0.7 mg/l

Shaded result exceeded its closure standard.

**TABLE 10**  
**SUMMARY OF CONCRETE CHIP SAMPLING RESULTS**  
**FOR THE FORMER**  
**FLAMMABLE STORAGE AREA**  
**MacDermid, Inc.**  
**526 Huntingdon Avenue**  
**Waterbury, CT**  
**HRP #MAC0030.RC**

*January 13, 2000*

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)	Computed/Leachate (mg/l) Concentration (result / 20)
005 – Flammable Storage (chip sample)	Trichloroethylene	1.4 mg/kg	69	0.0069	0.07
	Tetrachloroethylene	0.12 mg/kg	32	0.0032	0.006
007 – Flammable Storage (chip sample)	Chromium, Leachate	0.27 mg/l		0.05	

*February 9, 2000*

Sample (Type)	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)
CC008 – Flammable Storage (chip sample 6" NW of original 005)	Trichloroethylene, Leachate	0.011 mg/l		0.0069
	Tetrachloroethylene, Leachate	ND <0.010 mg/l		0.0032
CC009 – Flammable Storage (chip sample 6" NW of original 007)	Chromium, Leachate	ND <0.010 mg/l		0.05

*April 26, 2000*

Sample (Type)	Parameter	Result	Leachate Standard (mg/l)
CC010 – Flammable Storage (chip sample 6" NW of original 005)	Tetrachloroethylene, Leachate	0.0022 mg/l	0.0032

ND = Not Detected

Shaded result exceeded its closure standard.

**TABLE 11**  
**SUMMARY OF CONCRETE CHIP SAMPLING RESULTS (CLOSURE EXCEEDANCES)**  
**FOR THE FORMER NMP RECYCLING AREA**  
**MacDermid, Inc.**  
**526 Huntingdon Avenue**  
**Waterbury, CT**  
**HRP #MAC0030.RC**  
**August 10, 2000**

Sample	Parameter	Result	Direct Exposure Standard (mg/kg)	Leachate Standard (mg/l)
CC011	Chromium, Leachate	0.11 mg/l		0.05
	Zinc, Leachate	5.4 mg/l		5.0
CC021	Nickel, Leachate	0.72 mg/l		0.7
	Zinc, Leachate	7.1 mg/l		5.0
CC022	Chromium, Leachate	0.87 mg/l		0.05
	Zinc, Leachate	6.4 mg/l		5.0
CC023	Chromium, Leachate	0.11 mg/l		0.05
	Zinc, Leachate	7.6 mg/l		5.0
CC024	Chromium, Leachate	0.4 mg/l		0.05
CC025	Zinc, Leachate	6.8 mg/l		5.0
CC026	Chromium, Leachate	0.36 mg/l		0.05
CC027	Chromium, Leachate	0.057 mg/l		0.05
CC028	Chromium, Leachate	0.062 mg/l		0.05
	Bis (2-ethylhexyl) phthalate	64 mg/kg	44	
<b>October 3, 2000</b>				
CC030	Chromium, Leachate	0.053 mg/l		0.05
CC032	Chromium, Leachate	0.37 mg/l		0.05
	Zinc, Leachate	5.2 mg/l		0.05
CC033	Chromium, Leachate	0.37 mg/l		0.05
CC034	Chromium, Leachate	0.069 mg/l		0.05
CC035	Chromium, Leachate	0.15 mg/l		0.05
CC036	Chromium, Leachate	0.11 mg/l		0.05
CC037	Chromium, Leachate	0.13 mg/l		0.05

**HRP**

*Associates Inc.*



**TABLE 12**  
**SUMMARY OF CONCRETE CHIP SAMPLING RESULTS FOR THE**  
**FORMER SOLDER STRIPPER RECYCLING AREA**

MacDermid, Inc.  
526 Huntingdon Avenue  
Waterbury, CT  
(HRP #MAC-0030.RC)

Sample Number	Parameter	Result (mg/l)	Leachate Standard (mg/l)
CC016	Cadmium, Leachate	ND <0.005	0.01
	Chromium, Leachate	ND <0.02	0.05
	Nickel, Leachate	0.051	0.7
	Zinc, Leachate	0.051	5.0
CC017	Cadmium, Leachate	0.01	0.01
	Chromium, Leachate	ND <0.02	0.05
	Nickel, Leachate	0.07	0.7
	Zinc, Leachate	0.52	5.0
CC018	Cadmium, Leachate	ND <0.005	0.01
	Chromium, Leachate	ND <0.02	0.05
	Nickel, Leachate	0.051	0.7
	Zinc, Leachate	0.91	5.0
CC019	Cadmium, Leachate	ND <0.005	0.01
	Chromium, Leachate	ND <0.02	0.05
	Nickel, Leachate	0.044	0.7
	Zinc, Leachate	1.3	5.0
CC020	Cadmium, Leachate	ND <0.005	0.01
	Chromium, Leachate	ND <0.02	0.05
	Nickel, Leachate	0.049	0.7
	Zinc, Leachate	0.79	5.0

ND = Not Detected

## FIGURES

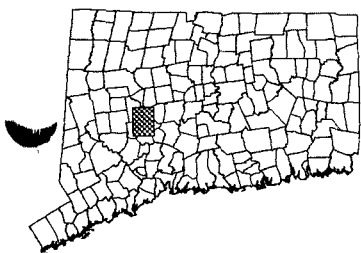
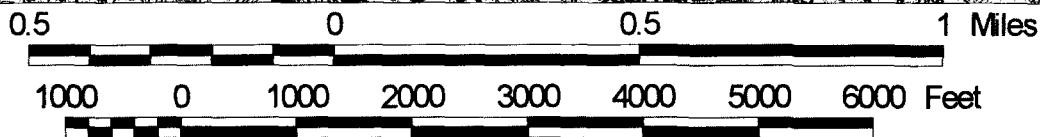


Figure 1, Site Location Map  
 MacDermid, Inc.  
 526 Huntington Avenue  
 Waterbury, Connecticut  
 HRP # MAC0030.RC  
 14 March 2001



**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID #** 100825

**Facility Name:** MACDERMID INC

**Facility ID#:** CTD001164599

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

☒ **Oversized (in Site File)**      ☐ **Oversized (in Map Drawer)**

☐ **Page(s) Missing (Please Specify Below)**

☐ **Privileged**      ☐ **Other (Provide Purpose Below)**

\_\_\_\_\_  
\_\_\_\_\_

**Description of Oversized Material, if applicable:**

**SHEET 2: CLOSURE PLAN**

\_\_\_\_\_

☒ **Map**      ☐ **Photograph**      ☐ **Other (Specify Below)**

\_\_\_\_\_  
\_\_\_\_\_

**\* Please Contact the EPA New England RCRA Records Center to View This Document \***

**US EPA New England  
RCRA Document Management System  
Image Target Sheet**

**RDMS Document ID #** 100825

**Facility Name:** MACDERMID INC

**Facility ID#:** CTD001164599

**Phase Classification:** R-1B

**Purpose of Target Sheet:**

☒ **Oversized** (in Site File)      ☐ **Oversized** (in Map Drawer)

☐ **Page(s) Missing** (Please Specify Below)

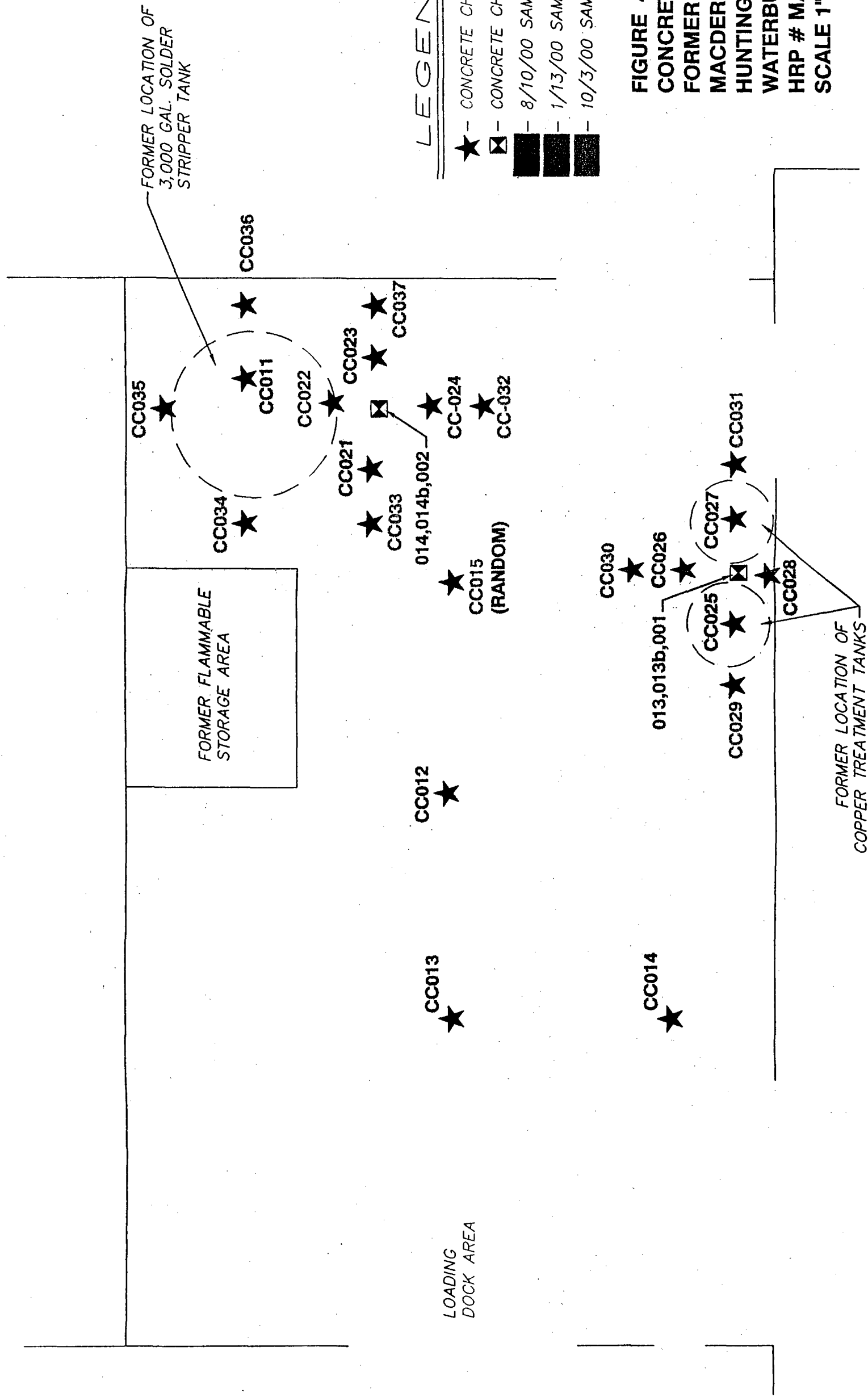
☐ **Privileged**      ☐ **Other** (Provide  
Purpose Below)

**Description of Oversized Material, if applicable:**

**FIGURE 3: CLOSURE SAMPLING LOCATIONS**

☒ **Map**      ☐ **Photograph**      ☐ **Other** (Specify Below)

**\* Please Contact the EPA New England RCRA Records Center to View This Document \***



**FIGURE 4**  
**CONCRETE SAMPLING LOCATIONS**  
**FORMER NMP RECYCLING AREA**  
**MACDERMID, INC.**  
**HUNTINGDON AVENUE**  
**WATERBURY, CONNECTICUT**  
**HRP # MAC0030.RC**  
**SCALE 1" = 5'±**

L:\DWG\MAC0030.RC\NMP-SAMP-COLOR

**HRP**

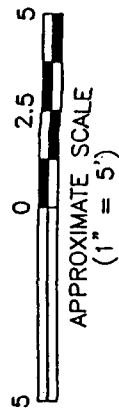
**ASSOCIATES, INC.**

167 New Britain Avenue  
Plainville, CT 06062

(860) 793-6899

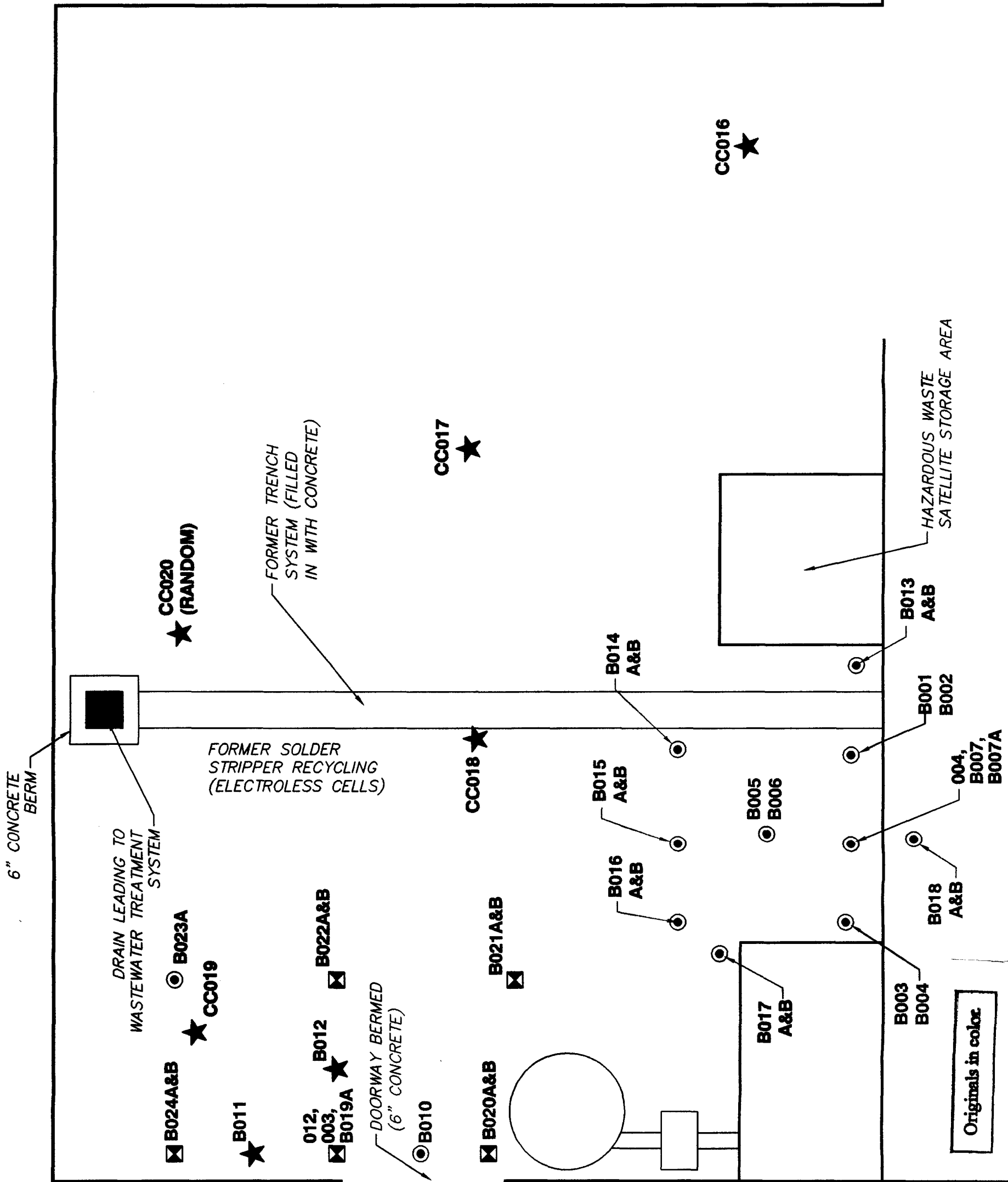
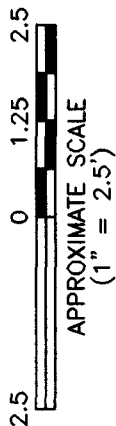
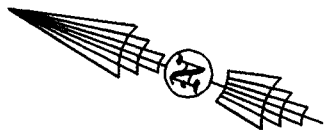
FAX: (860) 793-6871

www.hrpassoc.com



# LEGEND

- ★ - CONCRETE CHIP SAMPLE LOCATION
- ⊙ - SOIL SAMPLE LOCATION
- ⊠ - CONCRETE CHIP AND SOIL SAMPLE LOCATION
- - 8/10/00 SAMPLING LOCATION
- - 4/26-28/00 SAMPLING LOCATION
- - 2/9/00 SAMPLING LOCATION
- - 1/13/00 SAMPLING LOCATION



**FIGURE 5**  
**CONCRETE AND SOIL SAMPLES**  
**FORMER SOLDER STRIPPER**  
**RECYCLING AREA**  
**MACDERMID, INC.**  
**HUNTINGDON AVENUE**  
**WATERBURY, CONNECTICUT**  
**HRP # MAC0030.RC**  
**SCALE 1" = 2.5'±**

L:\DWG\MAC0030.RC\SOLD-SAMP-COLOR

**HRP**

**ASSOCIATES, INC.**

167 New Britain Avenue  
 Plainville, CT 06062

(860) 793-6899

FAX: (860) 793-6871

www.hrpassoc.com

# LEGEND

CC000 ★ - CONCRETE CHIP SAMPLE LOCATION  
L - LEACHATE

CC011		
Cr - L	0.11 mg/l	
Zn - L	5.4 mg/l	

CC035	
Cr - L	0.15 mg/l

CC022		
Cr - L	0.87 mg/l	
Zn - L	6.4 mg/l	

CC034	
Cr - L	0.069 mg/l

CC021		
Ni - L	0.072 mg/l	
Zn - L	7.1 mg/l	

CC033	
Cr - L	0.37 mg/l

FORMER LOCATION OF  
3,000 GAL. SOLDER  
STRIPPER TANK

CC036	
Cr - L	0.11 mg/l

CC023		
Cr - L	0.11 mg/l	
Zn - L	7.6 mg/l	

CC037	
Cr - L	0.13 mg/l

CC024	
Cr - L	0.040 mg/l

CC032	
Cr - L	0.37 mg/l
Zn - L	5.2 mg/l

CC026	
Cr - L	0.036 mg/l

CC027	
Cr - L	0.057 mg/l

O13		
Cr - L	0.075 mg/l	
001 (SOIL)		NO EXCEEDANCES

CC028		
Cr - L	0.062 mg/l	
Bis (2-Ethylhexyl) Phthalate - L	64 mg/kg	

FORMER LOCATION OF  
COPPER TREATMENT TANKS

O14	
Cr - L	0.07 mg/l
002 (SOIL)	NO EXCEEDANCES

CC030	
Cr - L	0.053 mg/l

CC025	
Zn - L	6.80 mg/l

CC014	
	(NO EXCEEDANCES)

CC012	
	(NO EXCEEDANCES)

CC013	
	(NO EXCEEDANCES)

CC015	
	(NO EXCEEDANCES) (RANDOM)

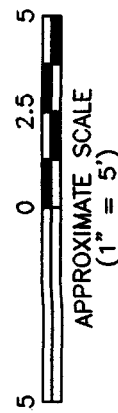
PARAMETER	LEACHATE STANDARD (mg/l)	DIRECT EXPOSURE STANDARD (mg/kg)
Cr - L	0.05	--
Zn - L	5.0	--
Ni - L	0.7	--
Bis (2-Ethylhexyl) Phthalate - L	--	44.0

FIGURE 6  
CONCRETE SAMPLE  
EXCEEDANCES  
FORMER NMP RECYCLING AREA  
MACDERMID, INC.  
HUNTINGDON AVENUE  
WATERBURY, CONNECTICUT  
HRP # MAC0030.RC  
SCALE 1" = 5'±

HRP

ASSOCIATES, INC.  
167 New Britain Avenue  
Plainville, CT 06062  
(860) 793-6899  
FAX: (860) 793-6871  
www.hrpassoc.com

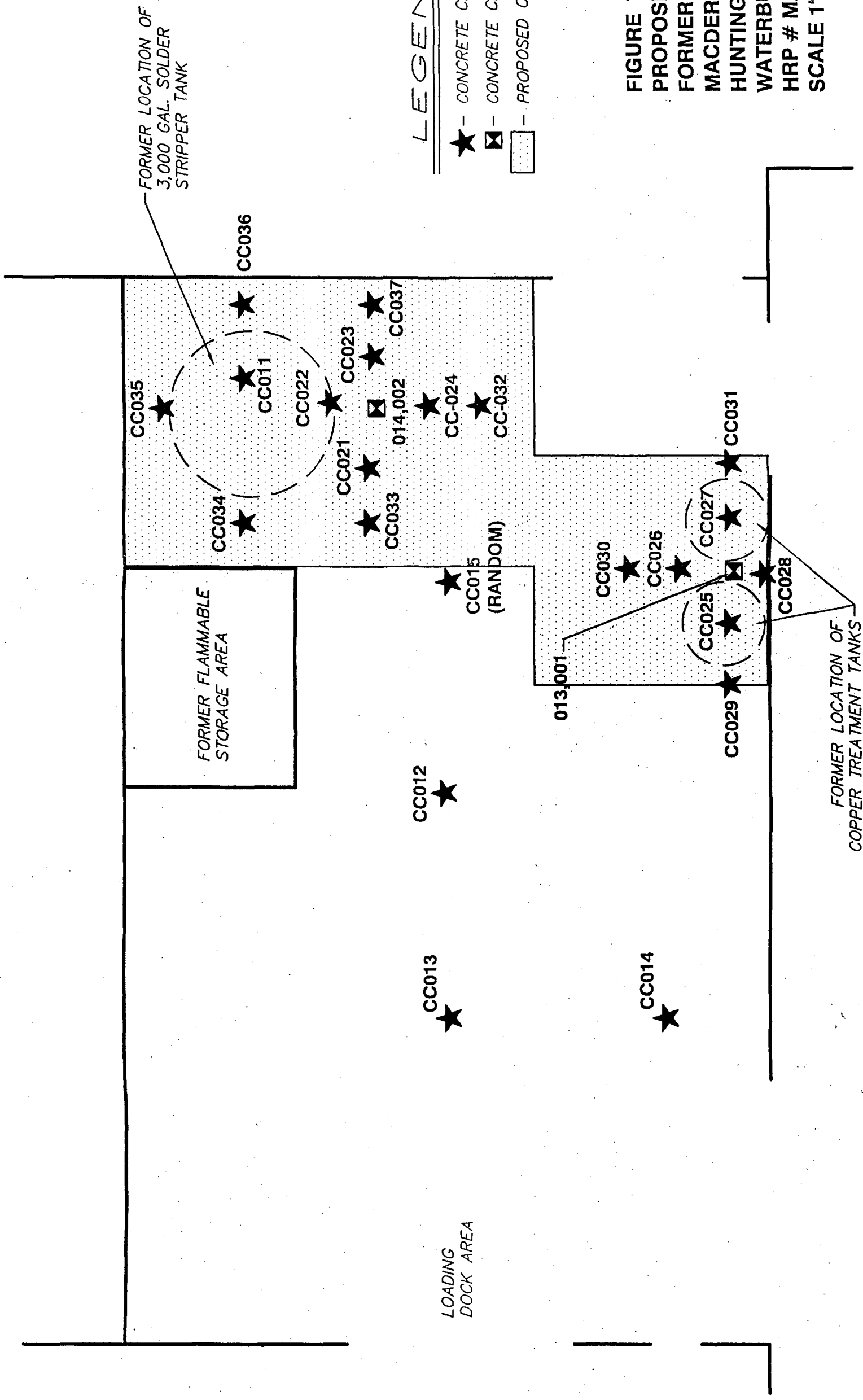
L:\DWG\MAC0030.RC\NMP-SAMP1-COLOR



FORMER FLAMMABLE  
STORAGE AREA

LOADING  
DOCK AREA





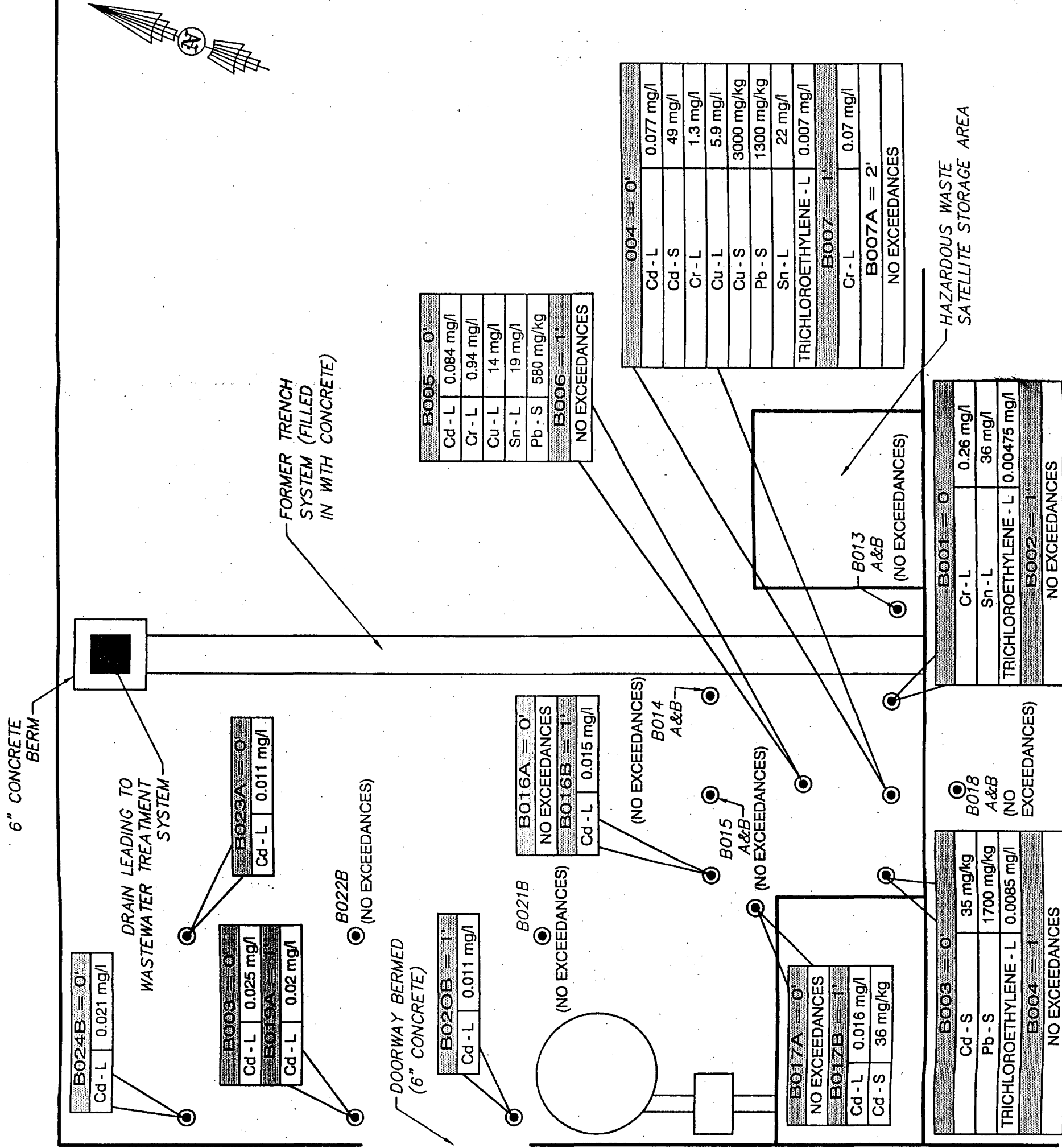
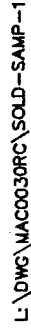
**LEGEND**

- ★ - CONCRETE CHIP SAMPLE LOCATION
- ☒ - CONCRETE CHIP AND SOIL SAMPLE LOCATION
- ▨ - PROPOSED CONCRETE REMOVAL

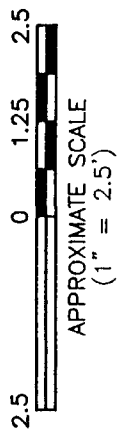
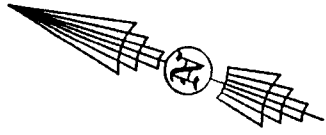
**FIGURE 7**  
**PROPOSED CONCRETE REMOVAL**  
**FORMER NMP RECYCLING AREA**  
**MACDERMID, INC.**  
**HUNTINGDON AVENUE**  
**WATERBURY, CONNECTICUT**  
**HRP # MAC0030.RC**  
**SCALE 1" = 5'±**

L:\DWG\MAC0030RC\P-CONCRETE-REM-B

**HRP**  
**ASSOCIATES, INC.**  
167 New Britain Avenue  
Plainville, CT 06062  
(860) 793-6899  
FAX: (860) 793-6871  
www.hrpassoc.com



★ — CONCRETE CHIP SAMPLE LOCATION  
 ⊙ — SOIL SAMPLE LOCATION  
 ⊠ — CONCRETE CHIP AND SOIL SAMPLE LOCATION  
 ▤ — PROPOSED SOIL REMOVAL (DEPTH OF 1')  
 ▥ — PROPOSED SOIL REMOVAL (DEPTH OF 2')



**FIGURE 9**  
**PROPOSED SOIL REMOVAL**  
**FORMER SOLDER STRIPPER**  
**RECYCLING AREA**  
**MACDERMID, INC.**  
**HUNTINGDON AVENUE**  
**WATERBURY, CONNECTICUT**  
**HRP # MAC0030.RC**  
**SCALE 1" = 2.5'±**

L:\DWG\MAC0030RC\P-SOIL-REM

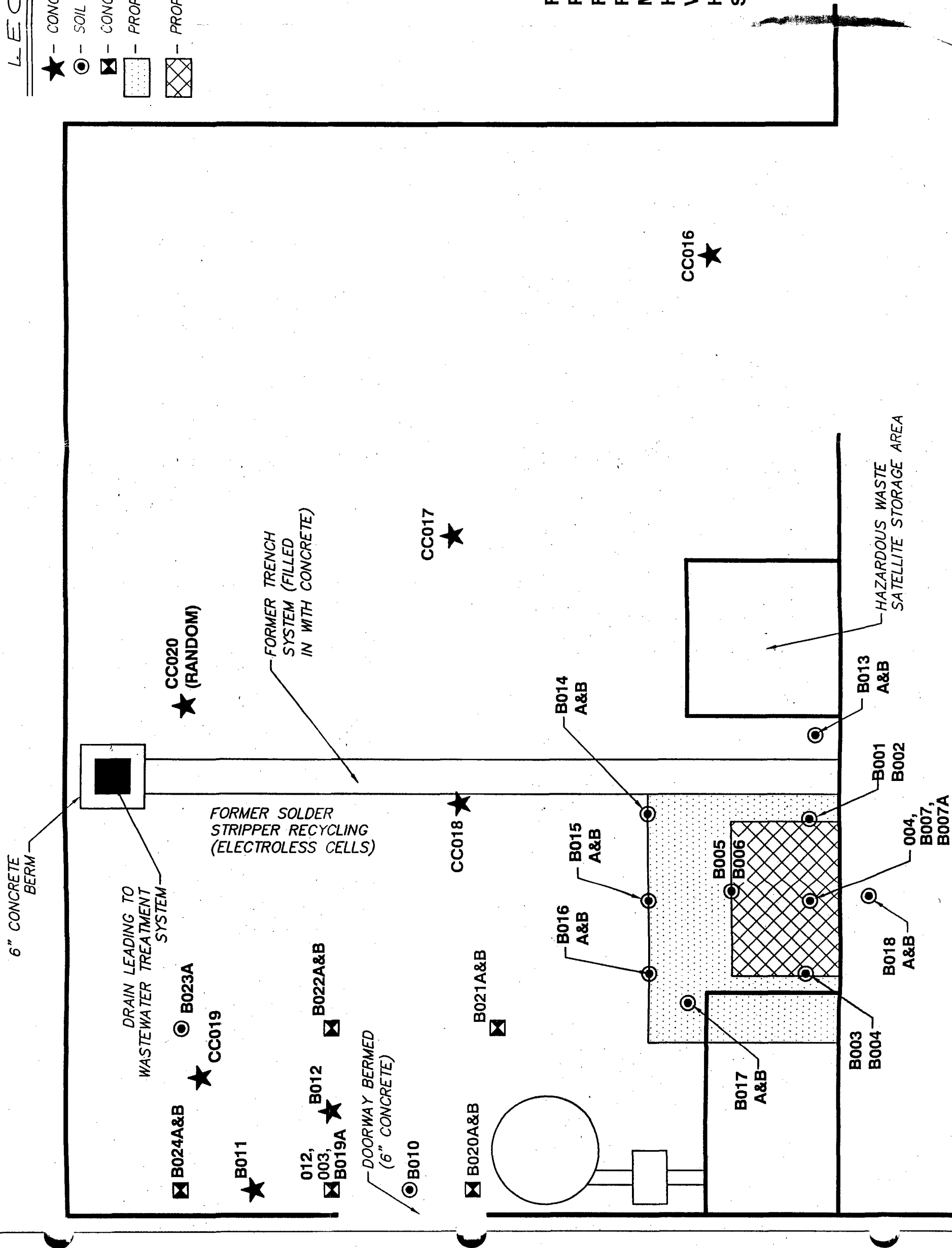
# HRR

ASSOCIATES, INC.

167 New Britain Avenue  
Plainville, CT 06062

**FAX:** (860) 793-6871

[www.hrpassoc.com](http://www.hrpassoc.com)



B024A-2nd SLAB		
Cd - L	0.012 mg/l	
Cd - S	58 mg/kg	

B011-2nd SLAB		
Cd - L	0.028 mg/l	
Cd - S	85 mg/kg	
Ni - S	400 mg/kg	

★ CC019  
(No Exceedances)

B012-2nd SLAB		
Cd - L	0.18 mg/l	
Cd - S	110 mg/kg	
Ni - S	450 mg/kg	

B022A-2nd SLAB		
Cd - L	0.029 mg/l	
Cd - S	79 mg/kg	

(No Exceedances)  
★ CC018

012-2nd SLAB		
Cd - L	0.013 mg/l	
Cd - S	76 mg/kg	

B021A-2nd SLAB		
Cd - L	0.037 mg/l	
Cd - S	75 mg/kg	
Ni - S	450 mg/kg	

B010-2nd SLAB		
Cd - L	0.029 mg/l	
Cd - S	75 mg/kg	
Ni - S	420 mg/kg	

B020A-2nd SLAB		
Cd - L	0.04 mg/l	
Cd - S	83 mg/kg	

6" CONCRETE BERM

DRAIN LEADING TO WASTEWATER TREATMENT SYSTEM

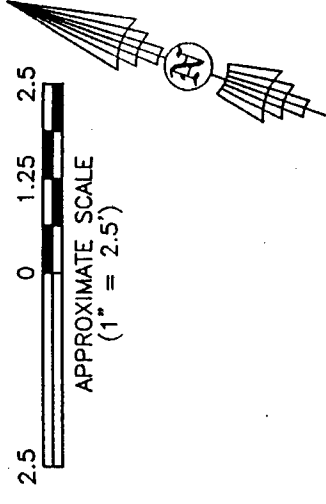
★ CC020  
(RANDOM)  
(No Exceedances)

FORMER TRENCH SYSTEM (FILLED IN WITH CONCRETE)

★ CC017  
(No Exceedances)

★ CC016  
(No Exceedances)

HAZARDOUS WASTE SATELLITE STORAGE AREA



## LEGEND

- ★ -- CONCRETE CHIP SAMPLE LOCATION
- L -- LEACHATE
- S -- SOLID

PARAMETER	LEACHATE STANDARD (mg/l)	DIRECT EXPOSURE (mg/kg)
Cd - L	0.01	—
Cd - S	—	34
Ni - S	—	360

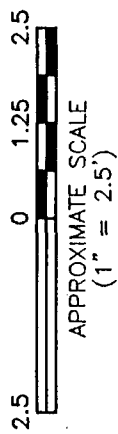
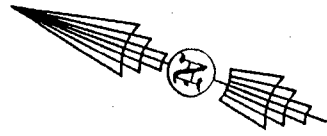
FIGURE 10  
CONCRETE SAMPLING EXCEEDANCES  
FORMER SOLDER STRIPPER RECYCLING AREA  
MACDERMID, INC.  
HUNTINGDON AVENUE  
WATERBURY, CONNECTICUT  
HRP # MAC0030.RC  
SCALE 1" = 2.5'±

## HRP

ASSOCIATES, INC.  
167 New Britain Avenue  
Plainville, CT 06062  
(860) 793-6899  
FAX: (860) 793-6871  
www.hrpassoc.com

# LEGEND

- ★ - CONCRETE CHIP SAMPLE LOCATION
- ⊙ - SOIL SAMPLE LOCATION
- ⊠ - CONCRETE CHIP AND SOIL SAMPLE LOCATION
- ▨ - PROPOSED CONCRETE REMOVAL

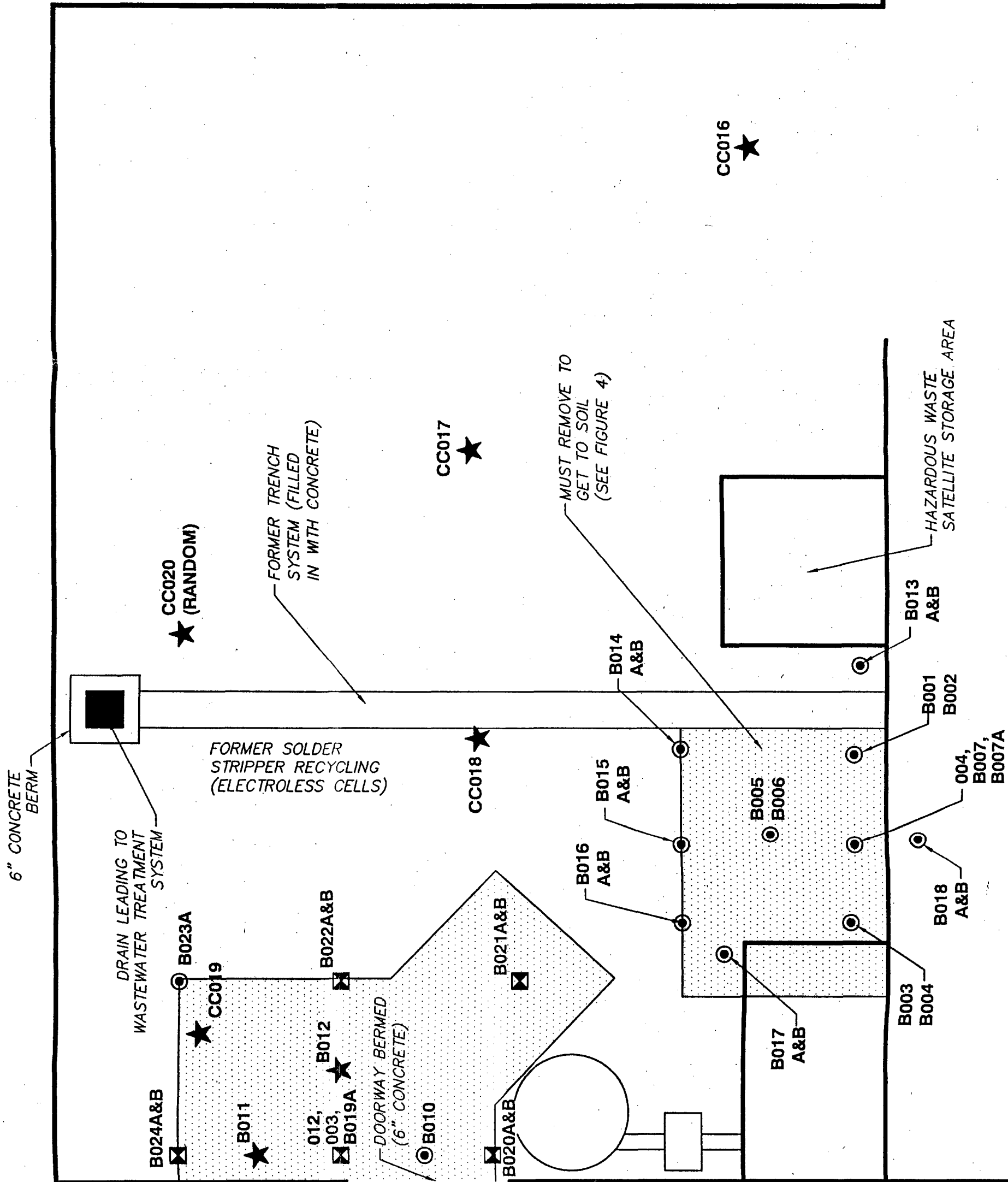


**FIGURE 11**  
**PROPOSED CONCRETE REMOVAL**  
**FORMER SOLDER STRIPPER**  
**RECYCLING AREA**  
**MACDERMID, INC.**  
**HUNTINGDON AVENUE**  
**WATERBURY, CONNECTICUT**  
**HRP # MAC0030.RC**  
**SCALE 1" = 2.5'±**

L:\DWG\MAC0030RC\P-CONC-REM

**HRP**

**ASSOCIATES, INC.**  
 167 New Britain Avenue  
 Plainville, CT 06062  
 (860) 793-6899  
 FAX: (860) 793-6871  
 www.hrpassoc.com



## APPENDIX A

### TCLP Analysis of Metal Hydroxide/Sulfide Sludge



COMPLETE ENVIRONMENTAL TESTING, INC.

911 Bridgeport Avenue  
900 Shelton Plaza  
Shelton, CT 06484

Tel: (203) 925-1133  
Fax: (203) 925-1140  
e-mail: comenvtst@aol.com

July 22, 1999

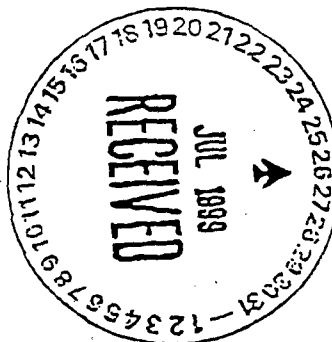
Mr. Roger Bellmore  
R.M. Jones & Company  
34 Ronzo Road  
Bristol, CT 06010

Project MacDermid  
Project #: WWT-2  
CET #: 99070310  
Solid: WWT Sludge  
Collection Date(s): 07/13/99

PREP ANALYSIS:

## Ultrasonic Extraction [EPA 3550B]

	WWT Sludge
Ultrasonic Extraction	Completed [07/16/99]



## TCLP, Metals [EPA 1311]

	WWT Sludge
TCLP, Metals	Completed [07/14/99]

ANALYSIS:

## TCLP Mercury [EPA 245.2] Units: mg/l Analysis Date: 07/16/99

	WWT Sludge
TCLP Mercury	ND < 0.002

## NOTES:

[] Indicates Date Prep Test Completed; ND is Not Detected.

Project#: WWT-2

- 2 -

July 22, 1999

Cer#: 99070310

Project MacDermid

Moisture Content [EPA 8260] Units: % Analysis Date: 07/15/99

	WWT Sludge
Moisture Content	49

Paint Filter Test [EPA 9095] Units: Std. units Analysis Date: 07/14/99

	WWT Sludge
Paint Filter Test	No Free Liquid

pH [EPA 9045C] Analysis Date: 07/14/99

	WWT Sludge
pH	7.66

TCLP Metals [EPA 6010] Units: mg/L Analysis Date: 07/14/99

	WWT Sludge
Lead	0.017
Selenium	ND < 0.01
Cadmium	ND < 0.005
Chromium	ND < 0.05
Arsenic	0.36
Barium	0.33
Silver	ND < 0.02

Notes:

[ ] Indicates Date Prep Test Completed; ND is Not Detected.



## APPENDIX B

### Table 13.1 of 1994 Hazardous Waste Closure Plan

TABLE 13.1

CLOSURE PERFORMANCE STANDARD FOR  
EACH HAZARDOUS CONSTITUENTMACDERMID, INC.  
526 HUNTINGDON AVENUE  
WATERBURY, CT

Hazardous Constituent	MCL <sup>1,2</sup> (mg/l)	RSD <sup>3</sup> Water (mg/l)	RSD <sup>3</sup> Concrete (mg/kg)	RFD <sup>4</sup> Water (mg/l)	RFD <sup>4</sup> Concrete (mg/kg)
Barium	1.0 <sup>5</sup>	---	---	2.0	900
Cadmium	0.01 <sup>5</sup>	---	---	---	---
Chromium, Total	0.05 <sup>5</sup>	---	---	40	20,000
Cyanide	0.2 <sup>5</sup>	---	---	0.7	300
Copper	1.0 <sup>6</sup>	---	---	---	---
Lead	0.05 <sup>5</sup>	---	---	---	---
Nickel	1.0 <sup>6</sup>	---	---	0.7	300
Tin	---	---	---	---	---
Zinc	5.0 <sup>6</sup>	---	---	---	---
Chlorobenzene	0.1 <sup>7</sup>	---	---	1.0	500
Ethyl Benzene	0.1 <sup>7</sup>	---	---	---	---
Isobutanol	---	---	---	10.0	5,000
Methylene Chloride	0.025 <sup>7</sup>	0.0047	47	2.0	1,000
Methyl Ethyl Ketone	1.0 <sup>7</sup>	---	---	2.0	900
Tetrachloroethylene	0.02 <sup>7</sup>	0.0069	69.0	0.4	200
Toluene	1.0 <sup>7</sup>	---	---	10.0	5,000
1,1,1-Trichloroethane	0.2 <sup>7</sup>	---	---	3.0	2,000
Trichlorofluoromethane	---	---	---	10.0	5,000
Trichloroethylene	0.005 <sup>7</sup>	0.0032	32	---	---
Xylene	---	---	---	---	---

<sup>1</sup> Maximum Contaminant Level<sup>2</sup> When MCL's are not available other standards such as Connecticut Volatile Organic Action Levels will be used if available.<sup>3</sup> Risk-Specific Doses<sup>4</sup> Verified Reference Doses<sup>5</sup> U.S. EPA Drinking Water Standard<sup>6</sup> CT Drinking Water Standard<sup>7</sup> CT-Volatile Organic Action Level

## APPENDIX C

### December 1999 Appendix IX Laboratory Report



December 23, 1999

Client: MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Attention: Mr. Greg Strong

EAS Project Number: 3211-99

Sample Number(s): 9913767, 9913768, 9913769, 9913770, 9913771,  
9913772

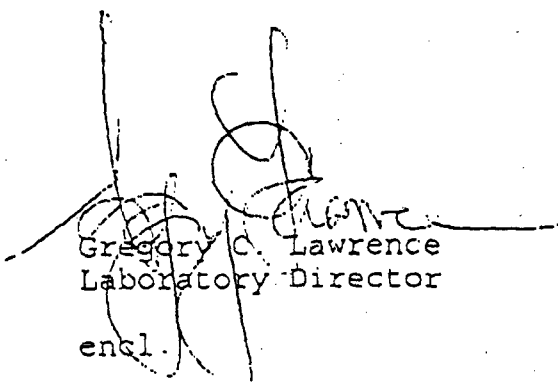
Copies of this report and the supporting computer data are retained in our files in the event they are required for future reference.

Any sample submitted to our laboratory will be retained for a maximum of thirty (30) days from receipt of the sample.

All analytical data, unless otherwise specified, is reported on a wet weight (as received) basis.

Our laboratory is a multi-state Certified Public Health Laboratory, offering a full range of analytical services which include:

Drinking Water Analysis  
Water and Wastewater Analysis  
Hazardous Waste Analysis (RCRA)  
Full Priority Pollutant Analysis  
Field Sampling



Gregory C. Lawrence  
Laboratory Director

encl.

MACDERMID, INC.  
245 Freight Street  
terbury, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC001  
EAS Project Number: 3211-99  
EAS Sample Number: 9913767  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Volatile Organic Comp. Appendix IX - Method SW-846-8260				
1,1,1,2-Tetrachloroethane	BQL	10.	ug/kg	12/21/99
1,1,1-Trichloroethane	BQL	10.	ug/kg	12/21/99
1,1,2,2-Tetrachloroethane	BQL	10.	ug/kg	12/21/99
1,1,2-Trichloroethane	BQL	10.	ug/kg	12/21/99
1,1-Dichloroethane	BQL	10.	ug/kg	12/21/99
1,1-Dichloroethene	BQL	10.	ug/kg	12/21/99
1,2-Dibromoethane	BQL	10.	ug/kg	12/21/99
1,2-Dichloroethane	BQL	10.	ug/kg	12/21/99
1,2-Dichloropropane	BQL	10.	ug/kg	12/21/99
1,4-Dioxane	2200.	100.	ug/kg	12/21/99
Dibromochloromethane	BQL	10.	ug/kg	12/21/99
Dibromomethane	BQL	10.	ug/kg	12/21/99
Dichlorodifluoromethane	BQL	10.	ug/kg	12/21/99
2-Hexanone	BQL	10.	ug/kg	12/21/99
4-Methyl-2-pentanone	171	10.	ug/kg	12/21/99
Acetone	150	10.	ug/kg	12/21/99
Acetonitrile	BQL	100.	ug/kg	12/21/99
Acrolein	BQL	10.	ug/kg	12/21/99
Acrylonitrile	BQL	10.	ug/kg	12/21/99
Allyl Chloride	BQL	10.	ug/kg	12/21/99
Benzene	BQL	10.	ug/kg	12/21/99
Bromodichloromethane	BQL	10.	ug/kg	12/21/99
Bromomethane	BQL	10.	ug/kg	12/21/99
Bromoform	BQL	10.	ug/kg	12/21/99
cis-1,2-Dichloroethene	BQL	10.	ug/kg	12/21/99
cis-1,3-Dichloropropene	BQL	10.	ug/kg	12/21/99
Carbon disulfide	BQL	10.	ug/kg	12/21/99
Carbon tetrachloride	BQL	10.	ug/kg	12/21/99
Chloroform	BQL	10.	ug/kg	12/21/99
Chloroprene	BQL	200.	ug/kg	12/21/99
Chlorobenzene	BQL	10.	ug/kg	12/21/99
Chloroethane	BQL	10.	ug/kg	12/21/99
Chloromethane	BQL	10.	ug/kg	12/21/99
1,2-Dibromo-3-chloropropane	BQL	10.	ug/kg	12/21/99
Ethylbenzene	BQL	10.	ug/kg	12/21/99
Ethyl methacrylate	BQL	10.	ug/kg	12/21/99
Iodomethane	BQL	10.	ug/kg	12/21/99
iso-Butanol	BQL	200.	ug/kg	12/21/99

MACDERMID, INC.  
245 Freight Street  
Meriden, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC001  
EAS Project Number: 3211-99  
EAS Sample Number: 9913767  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Methylene chloride	BQL	10.	ug/kg	12/21/99
2-Butanone (MEK)	12.	10.	ug/kg	12/21/99
Methylacrylonitrile	BQL	10.	ug/kg	12/21/99
Methyl methacrylate	BQL	10.	ug/kg	12/21/99
Pentachloroethane	BQL	10.	ug/kg	12/21/99
Propionitrile	BQL	200.	ug/kg	12/21/99
Styrene	BQL	10.	ug/kg	12/21/99
trans-1,2-Dichloroethene	BQL	10.	ug/kg	12/21/99
trans-1,3-Dichloropropene	BQL	10.	ug/kg	12/21/99
trans-1,4-Dichloro-2-butene	BQL	10.	ug/kg	12/21/99
Tetrachloroethylene	BQL	10.	ug/kg	12/21/99
Toluene	BQL	10.	ug/kg	12/21/99
Total Xylenes	BQL	10.	ug/kg	12/21/99
Trichloroethylene	BQL	10.	ug/kg	12/21/99
Trichlorofluoromethane	BQL	10.	ug/kg	12/21/99
Vinyl acetate	BQL	10.	ug/kg	12/21/99
Vinyl chloride	BQL	10.	ug/kg	12/21/99

BQL = Below Quantitation Limit

\* Certification \*

Connecticut Certified Laboratory Number: PH 0558

New York Certified Laboratory Number: 10916

Massachusetts Certified Laboratory Number: CT 020

The above analyses were conducted in accordance with:

1. APHA Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. Clean Water Act, List of Approved Test Procedures, 40 CFR.
3. EPA Test Methods for the Evaluation of Solid Waste, SW-846, 3rd Edition, December, 1987.

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC003  
EAS Project Number: 3211-99  
EAS Sample Number: 9913768  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Volatile Organic Comp. Appendix IX - Method SW-846-8260				
1,1,1,2-Tetrachloroethane	BQL	10.	ug/kg	12/21/99
1,1,1-Trichloroethane	BQL	10.	ug/kg	12/21/99
1,1,2,2-Tetrachloroethane	BQL	10.	ug/kg	12/21/99
1,1,2-Trichloroethane	BQL	10.	ug/kg	12/21/99
1,1-Dichloroethane	BQL	10.	ug/kg	12/21/99
1,1-Dichloroethene	BQL	10.	ug/kg	12/21/99
1,2-Dibromoethane	BQL	10.	ug/kg	12/21/99
1,2-Dichloroethane	BQL	10.	ug/kg	12/21/99
1,2-Dichloropropane	BQL	10.	ug/kg	12/21/99
1,4-Dioxane	670.	100.	ug/kg	12/21/99
Dibromochloromethane	BQL	10.	ug/kg	12/21/99
Dibromomethane	BQL	10.	ug/kg	12/21/99
Dichlorodifluoromethane	BQL	10.	ug/kg	12/21/99
2-Hexanone	BQL	10.	ug/kg	12/21/99
4-Methyl-2-pentanone	32.	10.	ug/kg	12/21/99
Acetone	1000.	10.	ug/kg	12/21/99
Acetonitrile	BQL	100.	ug/kg	12/21/99
Acrolein	BQL	10.	ug/kg	12/21/99
Acrylonitrile	BQL	10.	ug/kg	12/21/99
Allyl Chloride	BQL	10.	ug/kg	12/21/99
Benzene	BQL	10.	ug/kg	12/21/99
Bromodichloromethane	BQL	10.	ug/kg	12/21/99
Bromomethane	BQL	10.	ug/kg	12/21/99
Bromoform	BQL	10.	ug/kg	12/21/99
cis-1,2-Dichloroethene	BQL	10.	ug/kg	12/21/99
cis-1,3-Dichloropropene	BQL	10.	ug/kg	12/21/99
Carbon disulfide	BQL	10.	ug/kg	12/21/99
Carbon tetrachloride	BQL	10.	ug/kg	12/21/99
Chloroform	BQL	10.	ug/kg	12/21/99
Chloroprene	BQL	200.	ug/kg	12/21/99
Chlorobenzene	BQL	10.	ug/kg	12/21/99
Chloroethane	BQL	10.	ug/kg	12/21/99
Chloromethane	BQL	10.	ug/kg	12/21/99
1,2-Dibromo-3-chloropropane	BQL	10.	ug/kg	12/21/99
Ethylbenzene	2100.	10.	ug/kg	12/21/99
Ethyl methacrylate	BQL	10.	ug/kg	12/21/99
Iodomethane	BQL	10.	ug/kg	12/21/99
iso-Butanol	BQL	200.	ug/kg	12/21/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC003  
EAS Project Number: 3211-99  
EAS Sample Number: 9913768  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Methylene chloride	230	10.	ug/kg	12/21/99
2-Butanone (MEK)	1000	10.	ug/kg	12/21/99
Methylacrylonitrile	BQL	10.	ug/kg	12/21/99
Methyl methacrylate	BQL	10.	ug/kg	12/21/99
Pentachloroethane	BQL	10.	ug/kg	12/21/99
Propionitrile	BQL	200.	ug/kg	12/21/99
Styrene	BQL	10.	ug/kg	12/21/99
trans-1,2-Dichloroethene	BQL	10.	ug/kg	12/21/99
trans-1,3-Dichloropropene	BQL	10.	ug/kg	12/21/99
trans-1,4-Dichloro-2-butene	BQL	10.	ug/kg	12/21/99
Tetrachloroethylene	50	10.	ug/kg	12/21/99
Toluene	170	10.	ug/kg	12/21/99
Total Xylenes	12	0.010	mg/kg	12/21/99
Trichloroethylene	73	10.	ug/kg	12/21/99
Trichlorofluoromethane	BQL	10.	ug/kg	12/21/99
Vinyl acetate	BQL	10.	ug/kg	12/21/99
Vinyl chloride	BQL	10.	ug/kg	12/21/99

\* Comments \*

Total Xylenes units are mg/kg.



MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC003  
EAS Project Number: 3211-99  
EAS Sample Number: 9913768  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
-----------	------	-----------------------	-------	------------------

BQL = Below Quantitation Limit

\* Certification \*

Connecticut Certified Laboratory Number: PH 0558

New York Certified Laboratory Number: 10916

Massachusetts Certified Laboratory Number: CT 020

The above analyses were conducted in accordance with:

1. APHA Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. Clean Water Act, List of Approved Test Procedures, 40 CFR.
3. EPA Test Methods for the Evaluation of Solid Waste, SW-846, 3rd Edition, December, 1987.

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC005  
EAS Project Number: 3211-99  
EAS Sample Number: 9913769  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Volatile Organic Comp. Appendix IX - Method SW-846-8260				
1,1,1,2-Tetrachloroethane	BQL	10.	ug/kg	12/21/99
1,1,1-Trichloroethane	BQL	10.	ug/kg	12/21/99
1,1,2,2-Tetrachloroethane	BQL	10.	ug/kg	12/21/99
1,1,2-Trichloroethane	BQL	10.	ug/kg	12/21/99
1,1-Dichloroethane	BQL	10.	ug/kg	12/21/99
1,1-Dichloroethene	BQL	10.	ug/kg	12/21/99
1,2-Dibromoethane	BQL	10.	ug/kg	12/21/99
1,2-Dichloroethane	BQL	10.	ug/kg	12/21/99
1,2-Dichloropropane	BQL	10.	ug/kg	12/21/99
1,4-Dioxane	BQL	100.	ug/kg	12/21/99
Dibromochloromethane	BQL	10.	ug/kg	12/21/99
Dibromomethane	BQL	10.	ug/kg	12/21/99
Dichlorodifluoromethane	BQL	10.	ug/kg	12/21/99
2-Hexanone	BQL	10.	ug/kg	12/21/99
4-Methyl-2-pentanone	BQL	10.	ug/kg	12/21/99
Acetone	BQL	10.	ug/kg	12/21/99
Acetonitrile	BQL	100.	ug/kg	12/21/99
Acrolein	BQL	10.	ug/kg	12/21/99
Acrylonitrile	BQL	10.	ug/kg	12/21/99
Allyl Chloride	BQL	10.	ug/kg	12/21/99
Benzene	BQL	10.	ug/kg	12/21/99
Bromodichloromethane	BQL	10.	ug/kg	12/21/99
Bromomethane	BQL	10.	ug/kg	12/21/99
Bromoform	BQL	10.	ug/kg	12/21/99
cis-1,2-Dichloroethene	BQL	10.	ug/kg	12/21/99
cis-1,3-Dichloropropene	BQL	10.	ug/kg	12/21/99
Carbon disulfide	BQL	10.	ug/kg	12/21/99
Carbon tetrachloride	BQL	10.	ug/kg	12/21/99
Chloroform	BQL	10.	ug/kg	12/21/99
Chloroprene	BQL	200.	ug/kg	12/21/99
Chlorobenzene	BQL	10.	ug/kg	12/21/99
Chloroethane	BQL	10.	ug/kg	12/21/99
Chloromethane	BQL	10.	ug/kg	12/21/99
1,2-Dibromo-3-chloropropane	BQL	10.	ug/kg	12/21/99
Ethylbenzene	BQL	10.	ug/kg	12/21/99
Ethyl methacrylate	BQL	10.	ug/kg	12/21/99
Iodomethane	BQL	10.	ug/kg	12/21/99
iso-Butanol	BQL	200.	ug/kg	12/21/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC005  
EAS Project Number: 3211-99  
EAS Sample Number: 9913769  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Methylene chloride	20.1	10.	ug/kg	12/21/99
2-Butanone (MEK)	BQL	10.	ug/kg	12/21/99
Methylacrylonitrile	BQL	10.	ug/kg	12/21/99
Methyl methacrylate	BQL	10.	ug/kg	12/21/99
Pentachloroethane	BQL	10.	ug/kg	12/21/99
Propionitrile	BQL	200.	ug/kg	12/21/99
Styrene	BQL	10.	ug/kg	12/21/99
trans-1,2-Dichloroethene	BQL	10.	ug/kg	12/21/99
trans-1,3-Dichloropropene	BQL	10.	ug/kg	12/21/99
trans-1,4-Dichloro-2-butene	BQL	10.	ug/kg	12/21/99
Tetrachloroethylene	BQL	10.	ug/kg	12/21/99
Toluene	BQL	10.	ug/kg	12/21/99
Total Xylenes	BQL	10.	ug/kg	12/21/99
Trichloroethylene	BQL	10.	ug/kg	12/21/99
Trichlorofluoromethane	BQL	10.	ug/kg	12/21/99
Vinyl acetate	BQL	10.	ug/kg	12/21/99
Vinyl chloride	BQL	10.	ug/kg	12/21/99

BQL = Below Quantitation Limit

\* Certification \*

Connecticut Certified Laboratory Number: PH 0558

New York Certified Laboratory Number: 10916

Massachusetts Certified Laboratory Number: CT 020

The above analyses were conducted in accordance with:

1. APHA Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. Clean Water Act, List of Approved Test Procedures, 40 CFR.
3. EPA Test Methods for the Evaluation of Solid Waste, SW-846, 3rd Edition, December, 1987.

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC 002  
EAS Project Number: 3211-99  
EAS Sample Number: 9913770  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Herbicide Extraction				12/17/99
Solid Pesticide/PCB Extraction				12/09/99
Cyanide, Total	BQL	5.0	mg/kg	12/06/99
Sulfide, Total	22.4	10.	mg/kg	12/08/99
Metal's Digestion for Solid Samples - Method SW-846-3050				12/06/99
Silver, Total	BQL	0.60	mg/kg	12/06/99
Arsenic, Total	BQL	0.10	mg/kg	12/06/99
Barium, Total	BQL	10.	mg/kg	12/06/99
Beryllium, Total	BQL	0.40	mg/kg	12/06/99
Cadmium, Total	0.43	0.20	mg/kg	12/06/99
Cobalt, Total	BQL	2.0	mg/kg	12/06/99
Chromium, Total	1.8	0.80	mg/kg	12/06/99
Copper, Total	18.3	0.40	mg/kg	12/06/99
Mercury, Total	BQL	10.	mg/kg	12/08/99
Nickel, Total	BQL	0.60	mg/kg	12/08/99
Lead, Total	16.1	1.2	mg/kg	12/06/99
Antimony, Total	BQL	8.0	mg/kg	12/06/99
Selenium, Total	BQL	0.50	mg/kg	12/06/99
Tin, Total	129.3	16.	mg/kg	12/06/99
Thallium, Total	BQL	8.0	mg/kg	12/06/99
Vanadium, Total	BQL	20.	mg/kg	12/06/99
Zinc, Total	BQL	20.	mg/kg	12/06/99
Base/Neutral and Acidic Extractable - Method SW-846-8270				12/17/99
Appendix IX-Mthd 8270 (GC/MS) Solid - Method SW846-8270				
1,2,4,5-Tetrachlorobenzene	BQL	330.	ug/kg	12/23/99
1,2,4-Trichlorobenzene	BQL	330.	ug/kg	12/23/99
1,4-Naphthoquinone	BQL	330.	ug/kg	12/23/99
1-Naphthylamine	BQL	330.	ug/kg	12/23/99
2-Acetylaminofluorene (2-AAF)	BQL	330.	ug/kg	12/23/99
2,3,4,6-Tetrachlorophenol	BQL	330.	ug/kg	12/23/99
2,4,5-Trichlorophenol	BQL	330.	ug/kg	12/23/99
2,4,6-Trichlorophenol	BQL	330.	ug/kg	12/23/99
2,4-Dichlorophenol	BQL	330.	ug/kg	12/23/99
2,4-Dimethylphenol	BQL	330.	ug/kg	12/23/99
2,4-Dinitrophenol	BQL	1600.	ug/kg	12/23/99
2,4-Dinitrotoluene	BQL	330.	ug/kg	12/23/99
2,6-Dichlorophenol	BQL	330.	ug/kg	12/23/99
2,6-Dinitrotoluene	BQL	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC 002  
EAS Project Number: 3211-99  
EAS Sample Number: 9913770  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
2-Chloronaphthalene	BQL	330.	ug/kg	12/23/99
2-Chlorophenol	BQL	330.	ug/kg	12/23/99
2-Methylnaphthalene	BQL	330.	ug/kg	12/23/99
p-(Dimethylamino)azobenzene	BQL	330.	ug/kg	12/23/99
2-Naphthylamine	BQL	330.	ug/kg	12/23/99
2-Picoline	BQL	330.	ug/kg	12/23/99
3,3'-Dichlorobenzidine	BQL	330.	ug/kg	12/23/99
3,3'-Dimethylbenzidine	BQL	330.	ug/kg	12/23/99
3-Methylcholanthrene	BQL	330.	ug/kg	12/23/99
4,6-Dinitro-o-cresol	BQL	1600.	ug/kg	12/23/99
4-Aminobiphenyl	BQL	330.	ug/kg	12/23/99
4-Bromophenyl phenyl ether	BQL	330.	ug/kg	12/23/99
4-Chlorophenyl phenyl ether	BQL	330.	ug/kg	12/23/99
4-Nitroquinoline 1-oxide	BQL	330.	ug/kg	12/23/99
5-Nitro-o-toluidine	BQL	330.	ug/kg	12/23/99
Hexachlorophene	BQL	330.	ug/kg	12/23/99
Hexachloropropene	BQL	330.	ug/kg	12/23/99
7,12-Dimethylbenz[a]anthracene	BQL	330.	ug/kg	12/23/99
alpha, alpha-Dimethylphenethy	BQL	330.	ug/kg	12/23/99
Acenaphthene	BQL	330.	ug/kg	12/23/99
Acenaphthylene	BQL	330.	ug/kg	12/23/99
Acetophenone	BQL	330.	ug/kg	12/23/99
Aniline	BQL	330.	ug/kg	12/23/99
Anthracene	BQL	330.	ug/kg	12/23/99
Aramite	BQL	330.	ug/kg	12/23/99
Bis (2-ethylhexyl) phthalate	1400.	330.	ug/kg	12/23/99
Bis (2-chloroethyl) ether	BQL	330.	ug/kg	12/23/99
Bis (2-chloroethoxy) methane	BQL	330.	ug/kg	12/23/99
Bis(2-chloro-1-methylethyl) e	BQL	330.	ug/kg	12/23/99
Benzyl alcohol	BQL	330.	ug/kg	12/23/99
Butyl benzylphthalate	1600.	330.	ug/kg	12/23/99
Chrysene	BQL	330.	ug/kg	12/23/99
Chlorobenzilate	BQL	330.	ug/kg	12/23/99
Diallate	BQL	330.	ug/kg	12/23/99
Dibenzo[a,h]anthracene	BQL	330.	ug/kg	12/23/99
Dibenzofuran	BQL	330.	ug/kg	12/23/99
Diethylphthalate	BQL	330.	ug/kg	12/23/99
Dimethoate	BQL	330.	ug/kg	12/23/99
Dimethyl phthalate	BQL	330.	ug/kg	12/23/99
Di-n-octylphthalate	640.	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC 002  
EAS Project Number: 3211-99  
EAS Sample Number: 9913770  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Di-n-butylphthalate	370.	330.	ug/kg	12/23/99
Diphenylamine	BQL	330.	ug/kg	12/23/99
Disulfoton	BQL	330.	ug/kg	12/23/99
Ethyl methanesulfonate	BQL	330.	ug/kg	12/23/99
Famphur	BQL	330.	ug/kg	12/23/99
Fluoranthene	BQL	330.	ug/kg	12/23/99
Fluorene	BQL	330.	ug/kg	12/23/99
Hexachlorophene	BQL	1600.	ug/kg	12/23/99
Hexachlorobenzene	BQL	330.	ug/kg	12/23/99
Hexachlorobutadiene	BQL	330.	ug/kg	12/23/99
Hexachlorocyclopentadiene	BQL	330.	ug/kg	12/23/99
Hexachloroethane	BQL	330.	ug/kg	12/23/99
Indeno (1,2,3-cd) pyrene	BQL	330.	ug/kg	12/23/99
Isodrin	BQL	330.	ug/kg	12/23/99
Isophorone	BQL	330.	ug/kg	12/23/99
Isosafrole	BQL	330.	ug/kg	12/23/99
Kepone	BQL	330.	ug/kg	12/23/99
m-Cresol	BQL	330.	ug/kg	12/23/99
m-Dinitrobenzene	BQL	330.	ug/kg	12/23/99
Methyl methanesulfonate	BQL	330.	ug/kg	12/23/99
Methapyrilene	BQL	330.	ug/kg	12/23/99
Methyl parathion	BQL	330.	ug/kg	12/23/99
m-Nitroaniline	BQL	1600.	ug/kg	12/23/99
Naphthalene	BQL	330.	ug/kg	12/23/99
N-Nitrosodi-n-butylamine	BQL	330.	ug/kg	12/23/99
Nitrobenzene	BQL	330.	ug/kg	12/23/99
N-Nitrosodimethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodi-n-propylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodiphenylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosomethylethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodiethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosomorpholine	BQL	330.	ug/kg	12/23/99
N-Nitrosopiperidine	BQL	330.	ug/kg	12/23/99
N-Nitrosopyrrolidine	BQL	330.	ug/kg	12/23/99
o-Cresol	BQL	330.	ug/kg	12/23/99
o-Nitroaniline	BQL	1600.	ug/kg	12/23/99
o-Nitrophenol	BQL	330.	ug/kg	12/23/99
OOO-Triethyl phosphorothioate	BQL	330.	ug/kg	12/23/99
o-Toluidine	BQL	330.	ug/kg	12/23/99
Parathion	BQL	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC 002  
EAS Project Number: 3211-99  
EAS Sample Number: 9913770  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
p-Chloroaniline	BQL	330.	ug/kg	12/23/99
p-Chloro-m-cresol	BQL	330.	ug/kg	12/23/99
p-Cresol	BQL	330.	ug/kg	12/23/99
Pentachlorobenzene	BQL	330.	ug/kg	12/23/99
Pentachloronitrobenzene	BQL	1600.	ug/kg	12/23/99
Pentachlorophenol	BQL	1600.	ug/kg	12/23/99
Phenacetin	BQL	330.	ug/kg	12/23/99
Phenanthrene	BQL	330.	ug/kg	12/23/99
Phenol	BQL	330.	ug/kg	12/23/99
Phorate	BQL	330.	ug/kg	12/23/99
p-Nitroaniline	BQL	1600.	ug/kg	12/23/99
p-Nitrophenol	BQL	1600.	ug/kg	12/23/99
p-Phenylenediamine	BQL	330.	ug/kg	12/23/99
Pronamide	BQL	330.	ug/kg	12/23/99
Pyrene	BQL	330.	ug/kg	12/23/99
Pyridine	BQL	330.	ug/kg	12/23/99
Safrole	BQL	330.	ug/kg	12/23/99
Sulfotepp	BQL	330.	ug/kg	12/23/99
sym-Trinitrobenzene	BQL	330.	ug/kg	12/23/99
Thionazin	BQL	330.	ug/kg	12/23/99
Benzo (a) anthracene	BQL	330.	ug/kg	12/23/99
Benzo (a) pyrene	BQL	330.	ug/kg	12/23/99
Benzo (b) fluoranthene	BQL	330.	ug/kg	12/23/99
Benzo (ghi) perylene	BQL	330.	ug/kg	12/23/99
Benzo (k) fluoranthene	BQL	330.	ug/kg	12/23/99

#### Appendix IX Herbicides - Method SW-846-8150

2,4,5-T	BQL	10.	ug/kg	12/21/99
2,4,5-TP (Silvex)	BQL	10.	ug/kg	12/21/99
2,4-D	BQL	100.	ug/kg	12/21/99
Dinoseb	BQL	10.	ug/kg	12/21/99

#### Appendix IX Pesticide and PCB's - Method SW-846-8080

4,4'-DDD	BQL	200.	ug/kg	12/23/99
4,4'-DDE	BQL	200.	ug/kg	12/23/99
4,4'-DDT	BQL	200.	ug/kg	12/23/99
Aldrin	BQL	200.	ug/kg	12/23/99
Chlordane	BQL	200.	ug/kg	12/23/99
Dieldrin	BQL	200.	ug/kg	12/23/99
Endosulfan sulfate	BQL	200.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC 002  
EAS Project Number: 3211-99  
EAS Sample Number: 9913770  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Endrin aldehyde	BQL	200.	ug/kg	12/23/99
Endrin	BQL	200.	ug/kg	12/23/99
Heptachlor	BQL	200.	ug/kg	12/23/99
Heptachlor epoxide	BQL	200.	ug/kg	12/23/99
Methoxychlor	BQL	200.	ug/kg	12/23/99
Aroclor 1016	BQL	200.	ug/kg	12/23/99
Aroclor 1221	BQL	200.	ug/kg	12/23/99
Aroclor 1232	BQL	200.	ug/kg	12/23/99
Aroclor 1242	BQL	200.	ug/kg	12/23/99
Aroclor 1248	BQL	200.	ug/kg	12/23/99
Aroclor 1254	BQL	200.	ug/kg	12/23/99
Aroclor 1260	BQL	200.	ug/kg	12/23/99
Toxaphene	BQL	200.	ug/kg	12/23/99
a-BHC	BQL	200.	ug/kg	12/23/99
Endosulfan I	BQL	200.	ug/kg	12/23/99
b-BHC	BQL	200.	ug/kg	12/23/99
Endosulfan II	BQL	200.	ug/kg	12/23/99
d-BHC	BQL	200.	ug/kg	12/23/99
g-BHC (Lindane)	BQL	200.	ug/kg	12/23/99



MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Electro Cells  
Date Sample Collected: 12/02/1999  
Sample Description: CC 002  
EAS Project Number: 3211-99  
EAS Sample Number: 9913770  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
-----------	------	-----------------------	-------	------------------

BQL = Below Quantitation Limit

\* Certification \*

Connecticut Certified Laboratory Number: PH 0558

New York Certified Laboratory Number: 10916

Massachusetts Certified Laboratory Number: CT 020

The above analyses were conducted in accordance with:

1. APHA Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. Clean Water Act, List of Approved Test Procedures, 40 CFR.
3. EPA Test Methods for the Evaluation of Solid Waste, SW-846, 3rd Edition, December, 1987.

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC 004  
EAS Project Number: 3211-99  
EAS Sample Number: 9913771  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Herbicide Extraction				12/17/99
Solid Pesticide/PCB Extraction				12/09/99
Cyanide, Total	BQL	5.0	mg/kg	12/06/99
Sulfide, Total	8.1	5.0	mg/kg	12/15/99
Metal's Digestion for Solid Samples - Method SW-846-3050				12/06/99
Silver, Total	BQL	0.60	mg/kg	12/06/99
Arsenic, Total	BQL	0.10	mg/kg	12/06/99
Barium, Total	BQL	10.	mg/kg	12/06/99
Beryllium, Total	BQL	0.40	mg/kg	12/06/99
Cadmium, Total	BQL	0.20	mg/kg	12/21/99
Cobalt, Total	BQL	2.0	mg/kg	12/06/99
Chromium, Total	2.2	0.80	mg/kg	12/06/99
Copper, Total	5.6	0.40	mg/kg	12/06/99
Mercury, Total	BQL	10.	mg/kg	12/08/99
Nickel, Total	2.0	0.60	mg/kg	12/06/99
Lead, Total	2.6	1.2	mg/kg	12/06/99
Antimony, Total	BQL	8.0	mg/kg	12/06/99
Selenium, Total	BQL	0.50	mg/kg	12/06/99
Tin, Total	BQL	16.	mg/kg	12/06/99
Thallium, Total	BQL	8.0	mg/kg	12/06/99
Vanadium, Total	BQL	20.	mg/kg	12/06/99
Zinc, Total	21	20.	mg/kg	12/06/99
Base/Neutral and Acidic Extractable - Method SW-846-8270				12/17/99
Appendix IX-Mthd 8270 (GC/MS) Solid - Method SW846-8270				
1,2,4,5-Tetrachlorobenzene	BQL	330.	ug/kg	12/23/99
1,2,4-Trichlorobenzene	BQL	330.	ug/kg	12/23/99
1,4-Naphthoquinone	BQL	330.	ug/kg	12/23/99
1-Naphthylamine	BQL	330.	ug/kg	12/23/99
2-Acetylaminofluorene (2-AAF)	BQL	330.	ug/kg	12/23/99
2,3,4,6-Tetrachlorophenol	BQL	330.	ug/kg	12/23/99
2,4,5-Trichlorophenol	BQL	330.	ug/kg	12/23/99
2,4,6-Trichlorophenol	BQL	330.	ug/kg	12/23/99
2,4-Dichlorophenol	BQL	330.	ug/kg	12/23/99
2,4-Dimethylphenol	BQL	330.	ug/kg	12/23/99
2,4-Dinitrophenol	BQL	1600.	ug/kg	12/23/99
2,4-Dinitrotoluene	BQL	330.	ug/kg	12/23/99
2,6-Dichlorophenol	BQL	330.	ug/kg	12/23/99
2,6-Dinitrotoluene	BQL	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC 004  
EAS Project Number: 3211-99  
EAS Sample Number: 9913771  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
2-Chloronaphthalene	BQL	330.	ug/kg	12/23/99
2-Chlorophenol	BQL	330.	ug/kg	12/23/99
2-Methylnaphthalene	BQL	330.	ug/kg	12/23/99
p-(Dimethylamino)azobenzene	BQL	330.	ug/kg	12/23/99
2-Naphthylamine	BQL	330.	ug/kg	12/23/99
2-Picoline	BQL	330.	ug/kg	12/23/99
3,3'-Dichlorobenzidine	BQL	330.	ug/kg	12/23/99
3,3'-Dimethylbenzidine	BQL	330.	ug/kg	12/23/99
3-Methylcholanthrene	BQL	330.	ug/kg	12/23/99
4,6-Dinitro-o-cresol	BQL	1600.	ug/kg	12/23/99
4-Aminobiphenyl	BQL	330.	ug/kg	12/23/99
4-Bromophenyl phenyl ether	BQL	330.	ug/kg	12/23/99
4-Chlorophenyl phenyl ether	BQL	330.	ug/kg	12/23/99
4-Nitroquinoline 1-oxide	BQL	330.	ug/kg	12/23/99
5-Nitro-o-toluidine	BQL	330.	ug/kg	12/23/99
Hexachlorophene	BQL	330.	ug/kg	12/23/99
Hexachloropropene	BQL	330.	ug/kg	12/23/99
7,12-Dimethylbenz[a]anthracene	BQL	330.	ug/kg	12/23/99
alpha, alpha-Dimethylphenethy	BQL	330.	ug/kg	12/23/99
Acenaphthene	BQL	330.	ug/kg	12/23/99
Acenaphthylene	BQL	330.	ug/kg	12/23/99
Acetophenone	BQL	330.	ug/kg	12/23/99
Aniline	BQL	330.	ug/kg	12/23/99
Anthracene	BQL	330.	ug/kg	12/23/99
Aramite	BQL	330.	ug/kg	12/23/99
Bis (2-ethylhexyl) phthalate	178 J	330.	ug/kg	12/23/99
Bis (2-chloroethyl) ether	BQL	330.	ug/kg	12/23/99
Bis (2-chloroethoxy) methane	BQL	330.	ug/kg	12/23/99
Bis(2-chloro-1-methylethyl) e	BQL	330.	ug/kg	12/23/99
Benzyl alcohol	BQL	330.	ug/kg	12/23/99
Butyl benzylphthalate	BQL	330.	ug/kg	12/23/99
Chrysene	BQL	330.	ug/kg	12/23/99
Chlorobenzilate	BQL	330.	ug/kg	12/23/99
Diallate	BQL	330.	ug/kg	12/23/99
Dibenzo[a,h]anthracene	BQL	330.	ug/kg	12/23/99
Dibenzofuran	BQL	330.	ug/kg	12/23/99
Diethylphthalate	BQL	330.	ug/kg	12/23/99
Dimethoate	BQL	330.	ug/kg	12/23/99
Dimethyl phthalate	BQL	330.	ug/kg	12/23/99
Di-n-octylphthalate	BQL	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC 004  
EAS Project Number: 3211-99  
EAS Sample Number: 9913771  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Di-n-butylphthalate	40.1	J 330.	ug/kg	12/23/99
Diphenylamine	BQL	330.	ug/kg	12/23/99
Disulfoton	BQL	330.	ug/kg	12/23/99
Ethyl methanesulfonate	BQL	330.	ug/kg	12/23/99
Famphur	BQL	330.	ug/kg	12/23/99
Fluoranthene	BQL	330.	ug/kg	12/23/99
Fluorene	BQL	330.	ug/kg	12/23/99
Hexachlorophene	BQL	1600.	ug/kg	12/23/99
Hexachlorobenzene	BQL	330.	ug/kg	12/23/99
Hexachlorobutadiene	BQL	330.	ug/kg	12/23/99
Hexachlorocyclopentadiene	BQL	330.	ug/kg	12/23/99
Hexachloroethane	BQL	330.	ug/kg	12/23/99
Indeno (1,2,3-cd) pyrene	BQL	330.	ug/kg	12/23/99
Isodrin	BQL	330.	ug/kg	12/23/99
Isophorone	BQL	330.	ug/kg	12/23/99
Isosafrole	BQL	330.	ug/kg	12/23/99
Kepone	BQL	330.	ug/kg	12/23/99
m-Cresol	BQL	330.	ug/kg	12/23/99
m-Dinitrobenzene	BQL	330.	ug/kg	12/23/99
Methyl methanesulfonate	BQL	330.	ug/kg	12/23/99
Methapyrilene	BQL	330.	ug/kg	12/23/99
Methyl parathion	BQL	330.	ug/kg	12/23/99
m-Nitroaniline	BQL	1600.	ug/kg	12/23/99
Naphthalene	BQL	330.	ug/kg	12/23/99
N-Nitrosodi-n-butylamine	BQL	330.	ug/kg	12/23/99
Nitrobenzene	BQL	330.	ug/kg	12/23/99
N-Nitrosodimethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodi-n-propylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodiphenylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosomethylethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodiethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosomorpholine	BQL	330.	ug/kg	12/23/99
N-Nitrosopiperidine	BQL	330.	ug/kg	12/23/99
N-Nitrosopyrrolidine	BQL	330.	ug/kg	12/23/99
o-Cresol	BQL	330.	ug/kg	12/23/99
o-Nitroaniline	BQL	1600.	ug/kg	12/23/99
o-Nitrophenol	BQL	330.	ug/kg	12/23/99
OOO-Triethyl phosphorothioate	BQL	330.	ug/kg	12/23/99
o-Toluidine	BQL	330.	ug/kg	12/23/99
Parathion	BQL	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC 004  
EAS Project Number: 3211-99  
EAS Sample Number: 9913771  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
p-Chloroaniline	BQL	330.	ug/kg	12/23/99
p-Chloro-m-cresol	BQL	330.	ug/kg	12/23/99
p-Cresol	BQL	330.	ug/kg	12/23/99
Pentachlorobenzene	BQL	330.	ug/kg	12/23/99
Pentachloronitrobenzene	BQL	1600.	ug/kg	12/23/99
Pentachlorophenol	BQL	1600.	ug/kg	12/23/99
Phenacetin	BQL	330.	ug/kg	12/23/99
Phenanthrene	BQL	330.	ug/kg	12/23/99
Phenol	BQL	330.	ug/kg	12/23/99
Phorate	BQL	330.	ug/kg	12/23/99
p-Nitroaniline	BQL	1600.	ug/kg	12/23/99
p-Nitrophenol	BQL	1600.	ug/kg	12/23/99
p-Phenylenediamine	BQL	330.	ug/kg	12/23/99
Pronamide	BQL	330.	ug/kg	12/23/99
Pyrene	BQL	330.	ug/kg	12/23/99
Pyridine	BQL	330.	ug/kg	12/23/99
Safrole	BQL	330.	ug/kg	12/23/99
Sulfotepp	BQL	330.	ug/kg	12/23/99
sym-Trinitrobenzene	BQL	330.	ug/kg	12/23/99
Thionazin	BQL	330.	ug/kg	12/23/99
Benzo (a) anthracene	BQL	330.	ug/kg	12/23/99
Benzo (a) pyrene	BQL	330.	ug/kg	12/23/99
Benzo (b) fluoranthene	BQL	330.	ug/kg	12/23/99
Benzo (ghi) perylene	BQL	330.	ug/kg	12/23/99
Benzo (k) fluoranthene	BQL	330.	ug/kg	12/23/99

#### Appendix IX Herbicides - Method SW-846-8150

2,4,5-T	BQL	10.	ug/kg	12/21/99
2,4,5-TP (Silvex)	BQL	10.	ug/kg	12/21/99
2,4-D	BQL	100.	ug/kg	12/21/99
Dinoseb	BQL	10.	ug/kg	12/21/99

#### Appendix IX Pesticide and PCB's - Method SW-846-8080

4,4'-DDD	BQL	200.	ug/kg	12/23/99
4,4'-DDE	BQL	200.	ug/kg	12/23/99
4,4'-DDT	BQL	200.	ug/kg	12/23/99
Aldrin	BQL	200.	ug/kg	12/23/99
Chlordane	BQL	200.	ug/kg	12/23/99
Dieldrin	BQL	200.	ug/kg	12/23/99
Endosulfan sulfate	BQL	200.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC 004  
EAS Project Number: 3211-99  
EAS Sample Number: 9913771  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Endrin aldehyde	BQL	200.	ug/kg	12/23/99
Endrin	BQL	200.	ug/kg	12/23/99
Heptachlor	BQL	200.	ug/kg	12/23/99
Heptachlor epoxide	BQL	200.	ug/kg	12/23/99
Methoxychlor	BQL	200.	ug/kg	12/23/99
Aroclor 1016	BQL	200.	ug/kg	12/23/99
Aroclor 1221	BQL	200.	ug/kg	12/23/99
Aroclor 1232	BQL	200.	ug/kg	12/23/99
Aroclor 1242	BQL	200.	ug/kg	12/23/99
Aroclor 1248	BQL	200.	ug/kg	12/23/99
Aroclor 1254	BQL	200.	ug/kg	12/23/99
Aroclor 1260	BQL	200.	ug/kg	12/23/99
Toxaphene	BQL	200.	ug/kg	12/23/99
a-BHC	BQL	200.	ug/kg	12/23/99
Endosulfan I	BQL	200.	ug/kg	12/23/99
b-BHC	BQL	200.	ug/kg	12/23/99
Endosulfan II	BQL	200.	ug/kg	12/23/99
d-BHC	BQL	200.	ug/kg	12/23/99
g-BHC (Lindane)	BQL	200.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: < 90 Day  
Date Sample Collected: 12/02/1999  
Sample Description: CC 004  
EAS Project Number: 3211-99  
EAS Sample Number: 9913771  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
-----------	------	-----------------------	-------	------------------

BQL = Below Quantitation Limit

\* Certification \*

Connecticut Certified Laboratory Number: PH 0558

New York Certified Laboratory Number: 10916

Massachusetts Certified Laboratory Number: CT 020

The above analyses were conducted in accordance with:

1. APHA Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. Clean Water Act, List of Approved Test Procedures, 40 CFR.
3. EPA Test Methods for the Evaluation of Solid Waste, SW-846, 3rd Edition, December, 1987.

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC 006  
EAS Project Number: 3211-99  
EAS Sample Number: 9913772  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Herbicide Extraction				12/17/99
Solid Pesticide/PCB Extraction				12/09/99
Cyanide, Total	5.5	5.0	mg/kg	12/06/99
Sulfide, Total	38.4	10.	mg/kg	12/15/99
Metal's Digestion for Solid Samples - Method SW-846-3050				12/06/99
Silver, Total	BQL	0.60	mg/kg	12/06/99
Arsenic, Total	0.11	0.10	mg/kg	12/06/99
Barium, Total	BQL	10.	mg/kg	12/06/99
Beryllium, Total	BQL	0.40	mg/kg	12/06/99
Cadmium, Total	BQL	0.20	mg/kg	12/06/99
Cobalt, Total	BQL	2.0	mg/kg	12/06/99
Chromium, Total	2.1	0.80	mg/kg	12/06/99
Copper, Total	6.0	0.40	mg/kg	12/06/99
Mercury, Total	BQL	10.	mg/kg	12/08/99
Nickel, Total	2.0	0.60	mg/kg	12/06/99
Lead, Total	2.3	1.2	mg/kg	12/06/99
Antimony, Total	BQL	8.0	mg/kg	12/06/99
Selenium, Total	BQL	0.50	mg/kg	12/06/99
Tin, Total	BQL	16.	mg/kg	12/06/99
Thallium, Total	BQL	8.0	mg/kg	12/06/99
Vanadium, Total	BQL	20.	mg/kg	12/06/99
Zinc, Total	26.2	20.	mg/kg	12/06/99
Base/Neutral and Acidic Extractable - Method SW-846-8270				12/17/99
Appendix IX-Mthd 8270 (GC/MS) Solid - Method SW846-8270				
1,2,4,5-Tetrachlorobenzene	BQL	330.	ug/kg	12/23/99
1,2,4-Trichlorobenzene	BQL	330.	ug/kg	12/23/99
1,4-Naphthoquinone	BQL	330.	ug/kg	12/23/99
1-Naphthylamine	BQL	330.	ug/kg	12/23/99
2-Acetylaminofluorene (2-AAF)	BQL	330.	ug/kg	12/23/99
2,3,4,6-Tetrachlorophenol	BQL	330.	ug/kg	12/23/99
2,4,5-Trichlorophenol	BQL	330.	ug/kg	12/23/99
2,4,6-Trichlorophenol	BQL	330.	ug/kg	12/23/99
2,4-Dichlorophenol	BQL	330.	ug/kg	12/23/99
2,4-Dimethylphenol	BQL	330.	ug/kg	12/23/99
2,4-Dinitrophenol	BQL	1600.	ug/kg	12/23/99
2,4-Dinitrotoluene	BQL	330.	ug/kg	12/23/99
2,6-Dichlorophenol	BQL	330.	ug/kg	12/23/99
2,6-Dinitrotoluene	BQL	330.	ug/kg	12/23/99



MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC 006  
EAS Project Number: 3211-99  
EAS Sample Number: 9913772  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
2-Chloronaphthalene	BQL	330.	ug/kg	12/23/99
2-Chlorophenol	BQL	330.	ug/kg	12/23/99
2-Methylnaphthalene	BQL	330.	ug/kg	12/23/99
p-(Dimethylamino)azobenzene	BQL	330.	ug/kg	12/23/99
2-Naphthylamine	BQL	330.	ug/kg	12/23/99
2-Picoline	BQL	330.	ug/kg	12/23/99
3,3'-Dichlorobenzidine	BQL	330.	ug/kg	12/23/99
3,3'-Dimethylbenzidine	BQL	330.	ug/kg	12/23/99
3-Methylcholanthrene	BQL	330.	ug/kg	12/23/99
4,6-Dinitro-o-cresol	BQL	1600.	ug/kg	12/23/99
4-Aminobiphenyl	BQL	330.	ug/kg	12/23/99
4-Bromophenyl phenyl ether	BQL	330.	ug/kg	12/23/99
4-Chlorophenyl phenyl ether	BQL	330.	ug/kg	12/23/99
4-Nitroquinoline 1-oxide	BQL	330.	ug/kg	12/23/99
5-Nitro-o-toluidine	BQL	330.	ug/kg	12/23/99
Hexachlorophene	BQL	330.	ug/kg	12/23/99
Hexachloropropene	BQL	330.	ug/kg	12/23/99
7,12-Dimethylbenz[ <i>a</i> ]anthracene	BQL	330.	ug/kg	12/23/99
alpha, alpha-Dimethylphenethy	BQL	330.	ug/kg	12/23/99
Acenaphthene	BQL	330.	ug/kg	12/23/99
Acenaphthylene	BQL	330.	ug/kg	12/23/99
Acetophenone	BQL	330.	ug/kg	12/23/99
Aniline	BQL	330.	ug/kg	12/23/99
Anthracene	BQL	330.	ug/kg	12/23/99
Aramite	BQL	330.	ug/kg	12/23/99
Bis (2-ethylhexyl) phthalate	36 BQL	J 330.	ug/kg	12/23/99
Bis (2-chloroethyl) ether	BQL	330.	ug/kg	12/23/99
Bis (2-chloroethoxy) methane	BQL	330.	ug/kg	12/23/99
Bis(2-chloro-1-methylethyl) e	BQL	330.	ug/kg	12/23/99
Benzyl alcohol	97 BQL	J 330.	ug/kg	12/23/99
Butyl benzylphthalate	BQL	330.	ug/kg	12/23/99
Chrysene	BQL	330.	ug/kg	12/23/99
Chlorobenzilate	BQL	330.	ug/kg	12/23/99
Diallate	BQL	330.	ug/kg	12/23/99
Dibenzo[ <i>a,h</i> ]anthracene	BQL	330.	ug/kg	12/23/99
Dibenzofuran	BQL	330.	ug/kg	12/23/99
Diethylphthalate	BQL	330.	ug/kg	12/23/99
Dimethoate	BQL	330.	ug/kg	12/23/99
Dimethyl phthalate	BQL	330.	ug/kg	12/23/99
Di-n-octylphthalate	BQL	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC 006  
EAS Project Number: 3211-99  
EAS Sample Number: 9913772  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Di-n-butylphthalate	BQL	330.	ug/kg	12/23/99
Diphenylamine	BQL	330.	ug/kg	12/23/99
Disulfoton	BQL	330.	ug/kg	12/23/99
Ethyl methanesulfonate	BQL	330.	ug/kg	12/23/99
Famphur	BQL	330.	ug/kg	12/23/99
Fluoranthene	BQL	330.	ug/kg	12/23/99
Fluorene	BQL	330.	ug/kg	12/23/99
Hexachlorophene	BQL	1600.	ug/kg	12/23/99
Hexachlorobenzene	BQL	330.	ug/kg	12/23/99
Hexachlorobutadiene	BQL	330.	ug/kg	12/23/99
Hexachlorocyclopentadiene	BQL	330.	ug/kg	12/23/99
Hexachloroethane	BQL	330.	ug/kg	12/23/99
Indeno (1,2,3-cd) pyrene	BQL	330.	ug/kg	12/23/99
Isodrin	BQL	330.	ug/kg	12/23/99
Isophorone	BQL	330.	ug/kg	12/23/99
Isosafrole	BQL	330.	ug/kg	12/23/99
Kepone	BQL	330.	ug/kg	12/23/99
m-Cresol	BQL	330.	ug/kg	12/23/99
m-Dinitrobenzene	BQL	330.	ug/kg	12/23/99
Methyl methanesulfonate	BQL	330.	ug/kg	12/23/99
Methapyrilene	BQL	330.	ug/kg	12/23/99
Methyl parathion	BQL	330.	ug/kg	12/23/99
m-Nitroaniline	BQL	1600.	ug/kg	12/23/99
Naphthalene	BQL	330.	ug/kg	12/23/99
N-Nitrosodi-n-butylamine	BQL	330.	ug/kg	12/23/99
Nitrobenzene	BQL	330.	ug/kg	12/23/99
N-Nitrosodimethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodi-n-propylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodiphenylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosomethylethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosodiethylamine	BQL	330.	ug/kg	12/23/99
N-Nitrosomorpholine	BQL	330.	ug/kg	12/23/99
N-Nitrosopiperidine	BQL	330.	ug/kg	12/23/99
N-Nitrosopyrrolidine	BQL	330.	ug/kg	12/23/99
o-Cresol	BQL	330.	ug/kg	12/23/99
o-Nitroaniline	BQL	1600.	ug/kg	12/23/99
o-Nitrophenol	BQL	330.	ug/kg	12/23/99
OOO-Triethyl phosphorothioate	BQL	330.	ug/kg	12/23/99
o-Toluidine	BQL	330.	ug/kg	12/23/99
Parathion	BQL	330.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC 006  
EAS Project Number: 3211-99  
EAS Sample Number: 9913772  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
p-Chloroaniline	BQL	330.	ug/kg	12/23/99
p-Chloro-m-cresol	BQL	330.	ug/kg	12/23/99
p-Cresol	BQL	330.	ug/kg	12/23/99
Pentachlorobenzene	BQL	330.	ug/kg	12/23/99
Pentachloronitrobenzene	BQL	1600.	ug/kg	12/23/99
Pentachlorophenol	BQL	1600.	ug/kg	12/23/99
Phenacetin	BQL	330.	ug/kg	12/23/99
Phenanthrene	BQL	330.	ug/kg	12/23/99
Phenol	BQL	330.	ug/kg	12/23/99
Phorate	BQL	330.	ug/kg	12/23/99
p-Nitroaniline	BQL	1600.	ug/kg	12/23/99
p-Nitrophenol	BQL	1600.	ug/kg	12/23/99
p-Phenylenediamine	BQL	330.	ug/kg	12/23/99
Pronamide	BQL	330.	ug/kg	12/23/99
Pyrene	BQL	330.	ug/kg	12/23/99
Pyridine	BQL	330.	ug/kg	12/23/99
Safrole	BQL	330.	ug/kg	12/23/99
Sulfotepp	BQL	330.	ug/kg	12/23/99
sym-Trinitrobenzene	BQL	330.	ug/kg	12/23/99
Thionazin	BQL	330.	ug/kg	12/23/99
Benzo (a) anthracene	BQL	330.	ug/kg	12/23/99
Benzo (a) pyrene	BQL	330.	ug/kg	12/23/99
Benzo (b) fluoranthene	BQL	330.	ug/kg	12/23/99
Benzo (ghi) perylene	BQL	330.	ug/kg	12/23/99
Benzo (k) fluoranthene	BQL	330.	ug/kg	12/23/99

#### Appendix IX Herbicides - Method SW-846-8150

2,4,5-T	BQL	10.	ug/kg	12/21/99
2,4,5-TP (Silvex)	BQL	10.	ug/kg	12/21/99
2,4-D	BQL	100.	ug/kg	12/21/99
Dinoseb	BQL	10.	ug/kg	12/21/99

#### Appendix IX Pesticide and PCB's - Method SW-846-8080

4,4'-DDD	BQL	200.	ug/kg	12/23/99
4,4'-DDE	BQL	200.	ug/kg	12/23/99
4,4'-DDT	BQL	200.	ug/kg	12/23/99
Aldrin	BQL	200.	ug/kg	12/23/99
Chlordane	BQL	200.	ug/kg	12/23/99
Dieldrin	BQL	200.	ug/kg	12/23/99
Endosulfan sulfate	BQL	200.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Merbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC 006  
EAS Project Number: 3211-99  
EAS Sample Number: 9913772  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
Endrin aldehyde	BQL	200.	ug/kg	12/23/99
Endrin	BQL	200.	ug/kg	12/23/99
Heptachlor	BQL	200.	ug/kg	12/23/99
Heptachlor epoxide	BQL	200.	ug/kg	12/23/99
Methoxychlor	BQL	200.	ug/kg	12/23/99
Aroclor 1016	BQL	200.	ug/kg	12/23/99
Aroclor 1221	BQL	200.	ug/kg	12/23/99
Aroclor 1232	BQL	200.	ug/kg	12/23/99
Aroclor 1242	BQL	200.	ug/kg	12/23/99
Aroclor 1248	BQL	200.	ug/kg	12/23/99
Aroclor 1254	BQL	200.	ug/kg	12/23/99
Aroclor 1260	BQL	200.	ug/kg	12/23/99
Toxaphene	BQL	200.	ug/kg	12/23/99
a-BHC	BQL	200.	ug/kg	12/23/99
Endosulfan I	BQL	200.	ug/kg	12/23/99
b-BHC	BQL	200.	ug/kg	12/23/99
Endosulfan II	BQL	200.	ug/kg	12/23/99
d-BHC	BQL	200.	ug/kg	12/23/99
g-BHC (Lindane)	BQL	200.	ug/kg	12/23/99

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702-

Location Collected: Stripper Room  
Date Sample Collected: 12/02/1999  
Sample Description: CC 006  
EAS Project Number: 3211-99  
EAS Sample Number: 9913772  
Date Sample Received: 12/02/1999

Parameter	Data	Quantitation Limit	Units	Analysis Date
-----------	------	-----------------------	-------	------------------

BQL = Below Quantitation Limit

\* Certification \*

Connecticut Certified Laboratory Number: PH 0558

New York Certified Laboratory Number: 10916

Massachusetts Certified Laboratory Number: CT 020

The above analyses were conducted in accordance with:

1. APHA Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992.
2. Clean Water Act, List of Approved Test Procedures, 40 CFR.
3. EPA Test Methods for the Evaluation of Solid Waste, SW-846, 3rd Edition, December, 1987.

HRP Associates, Inc. 167 New Britain Avenue Plainville, CT 06062 Phone: 860-793-6899 Fax: 860-793-6871			HRP			Sheet <u>1</u> of <u>1</u>		
			CHAIN OF CUSTODY			Job Number <u>MAC 0018.8C</u>		
						Project Manager <u>ADM</u>		
Place & Address of Collection <u>WATERBURY, CONNECTICUT (Hwy 1)</u>					Samplers Name (Signature) <u>[Signature]</u>			
Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
CC 001	ELECTRIC PILES	G	800	COOL	12/1/99	9 <sup>30</sup>	CONCRETE	APP. IX
CC 002	"	G	↓	↓	↓	9 <sup>30</sup>	↓	↓
CC 003	LEAD PILE	G	↓	↓	↓	10	↓	↓
CC 004	"	G	↓	↓	↓	10	↓	↓
CC 005	STRIP PILE	G	↓	↓	↓	10 <sup>20</sup>	↓	↓
CC 006	"	G	↓	↓	↓	10 <sup>30</sup>	↓	↓
Relinquished By (Signature) <u>[Signature]</u>					Received By (Signature) <u>[Signature]</u>		Date <u>12-2-99</u>	Time <u>12:50 PM</u>
Relinquished By (Signature)					Received By (Signature)		Date	Time
Name & Address of Laboratory: <u>EAS COMMERCIAL ST. WATERBURY</u>								
Parameters		Sample ID						
		001	002	003	004	005	006	
40 CFR 264		X		X		X		
APP. IX								
VOLATILE COMPOST, ONLY								
40 CFR 264			X		X		X	
APP. IX								
NON-VOL COMPOST, ONLY								
Remarks: <u>HRP CONTACT: MIKE CHENOWETH</u>								
Abbreviations: G - Glass P - Plastic A - Amber T - TCLP Analysis M - Mass Analysis S - SPL Analysis								

## APPENDIX D

### Calculated Closure Standards

*Calculated Media Closure Criteria for Pollutant Mobility, Non-Carcinogens*

Example of Calculation with Cell References

RfD<sub>o</sub> (mg/kg-day)=      XXX      (chemical-specific value)

HI=      1.0  
BW (kg)=      70  
AT (days)=      25550  
SA =      0.2  
IR (l/day)=      2  
EF (days/year)=      365  
ED (years)=      70  
CF (mg/ug)=      0.001

$$GA/GAA \text{ PMC} = (B4*B6)*((B7*B8*B9)/(B10*B11* \text{ (in ug/l)})$$

$$GB \text{ PMC} = 10*D15 \text{ (in ug/l)}$$

OR

$$GB \text{ PMC} = (20*D17)/ \text{ (in mg/kg)}$$

1. Benzyl alcohol

RfD<sub>o</sub> (mg/kg-day)=      0.3      (EPA-NCEA Regional Support  
Provisional Value)

HI=      1.0  
BW (kg)=      70  
AT (days)=      25550  
SA =      0.2  
IR (l/day)=      2  
EF (days/year)=      365  
ED (years)=      70  
CF (mg/ug)=      0.001

$$GA/GAA \text{ PMC} = 2,100 \text{ ug/l} \quad (\text{Results via TCLP or SPLP})$$

$$GB \text{ PMC} = 21,000 \text{ ug/l} \quad (\text{MCC for site soils, results via TCLP or SPLP})$$

OR

$$GB \text{ PMC} = 420 \text{ mg/kg} \quad (\text{MCC for for site soils, results via mass analysis})$$



*Calculated Media Closure Criteria for Residential Soil Ingestion, Non-Carcinogens*

Example of Calculation with Cell References

RfD<sub>o</sub> (mg/kg-day)= XXX

HI= 1.0  
IR<sub>c</sub> (mg/day)= 200  
ED<sub>c</sub> (years)= 6  
EF (days/year)= 365  
CF (kg/mg)= 0.000001  
BW<sub>c</sub> (kg)= 15  
AT<sub>c</sub> (days)= 2190

IR<sub>a</sub> (mg/day)= 100  
ED<sub>a</sub> (years)= 24  
EF (days/year)= 365  
CF (kg/mg)= 0.000001  
BW<sub>a</sub> (kg)= 70  
AT<sub>a</sub> (days)= 8760

$$\text{Residential DEC} = (B4*B6)/(((B7*B8*B9*B10)/(B11*B12))+((E7*E8*E9*E10)/(E11*E12)))$$

*Results of calculation are in mg/kg.*

Benzyl Alcohol

RfD<sub>o</sub> (mg/kg-day)= 0.3 (EPA-NCEA Regional Support Provisional Value)

HI= 1.0  
IR<sub>c</sub> (mg/day)= 200  
ED<sub>c</sub> (years)= 6  
EF (days/year)= 365  
CF (kg/mg)= 0.000001  
BW<sub>c</sub> (kg)= 15  
AT<sub>c</sub> (days)= 2190

IR<sub>a</sub> (mg/day)= 100  
ED<sub>a</sub> (years)= 24  
EF (days/year)= 365  
CF (kg/mg)= 0.000001  
BW<sub>a</sub> (kg)= 70  
AT<sub>a</sub> (days)= 8760

$$\text{Residential DEC} = 20,323 \text{ mg/kg}$$

## Calculated Media Closure Criteria for Pollutant Mobility, Non-Carcinogens

### Example of Calculation with Cell References

RfD<sub>o</sub> (mg/kg-day)= XXX (chemical-specific value)

HI= 1.0  
BW (kg)= 70  
AT (days)= 25550  
SA = 0.2  
IR (l/day)= 2  
EF (days/year)= 365  
ED (years)= 70  
CF (mg/ug)= 0.001

$$GA/GAA \text{ PMC} = (B4*B6)*((B7*B8*B9)/(B10*B11* \text{ (in ug/l)})$$

$$GB \text{ PMC} = 10*D15 \text{ (in ug/l)}$$

OR

$$GB \text{ PMC} = (20*D17)/ \text{ (in mg/kg)}$$

### 1. 1,4-Dioxane

RfD<sub>o</sub> (mg/kg-day)= 0.011 (EPA-NCEA Regional Support  
Provisional Value)

HI= 1.0  
BW (kg)= 70  
AT (days)= 25550  
SA = 0.2  
IR (l/day)= 2  
EF (days/year)= 365  
ED (years)= 70  
CF (mg/ug)= 0.001

$$GA/GAA \text{ PMC} = 77 \text{ ug/l} \quad (\text{Results via TCLP or SPLP})$$

$$GB \text{ PMC} = 770 \text{ ug/l} \quad (\text{MCC for site soils, results via TCLP or SPLP})$$

OR

$$GB \text{ PMC} = 15 \text{ mg/kg} \quad (\text{MCC for for site soils, results via mass analysis})$$

### Calculated Media Closure Criteria for Residential Soil Ingestion, Non-Carcinogens

#### Example of Calculation with Cell References

RfD<sub>o</sub> (mg/kg-day)= XXX

HI=	1.0		
IR <sub>c</sub> (mg/day)=	200	IR <sub>a</sub> (mg/day)=	100
ED <sub>c</sub> (years)=	6	ED <sub>a</sub> (years)=	24
EF (days/year)=	365	EF (days/year)=	365
CF (kg/mg)=	0.000001	CF (kg/mg)=	0.000001
BW <sub>c</sub> (kg)=	15	BW <sub>a</sub> (kg)=	70
AT <sub>c</sub> (days)=	2190	AT <sub>a</sub> (days)=	8760

$$\text{Residential DEC} = (B4*B6)/(((B7*B8*B9*B10)/(B11*B12))+((E7*E8*E9*E10)/(E11*E12)))$$

Results of calculation are in mg/kg.

#### 1,4-dioxane

RfD<sub>o</sub> (mg/kg-day)= 0.011 (EPA-NCEA Regional Support Provisional Value)

HI=	1.0		
IR <sub>c</sub> (mg/day)=	200	IR <sub>a</sub> (mg/day)=	100
ED <sub>c</sub> (years)=	6	ED <sub>a</sub> (years)=	24
EF (days/year)=	365	EF (days/year)=	365
CF (kg/mg)=	0.000001	CF (kg/mg)=	0.000001
BW <sub>c</sub> (kg)=	15	BW <sub>a</sub> (kg)=	70
AT <sub>c</sub> (days)=	2190	AT <sub>a</sub> (days)=	8760

$$\text{Residential DEC} = 745 \text{ mg/kg}$$

## Calculated Media Closure Criteria for Pollutant Mobility, Non-Carcinogens

### Example of Calculation with Cell References

RfD<sub>o</sub> (mg/kg-day)= XXX (chemical-specific value)

HI= 1.0  
BW (kg)= 70  
AT (days)= 25550  
SA = 0.2  
IR (l/day)= 2  
EF (days/year)= 365  
ED (years)= 70  
CF (mg/ug)= 0.001

$$\text{GA/GAA PMC} = (B4*B6)*((B7*B8*B9)/(B10*B11* \text{ (in ug/l)})$$

$$\text{GB PMC} = 10*D15 \text{ (in ug/l)}$$

OR

$$\text{GB PMC} = (20*D17)/ \text{ (in mg/kg)}$$

#### 1. Tin

RfD<sub>o</sub> (mg/kg-day)= 0.6 (EPA-NCEA Regional Support  
Provisional Value)

HI= 1.0  
BW (kg)= 70  
AT (days)= 25550  
SA = 0.2  
IR (l/day)= 2  
EF (days/year)= 365  
ED (years)= 70  
CF (mg/ug)= 0.001

$$\text{GA/GAA PMC} = 4,200 \text{ ug/l (Results via TCLP or SPLP)}$$

$$\text{GB PMC} = 42,000 \text{ ug/l (MCC for site soils, results via TCLP or SPLP)}$$

OR

$$\text{GB PMC} = 840 \text{ mg/kg (MCC for for site soils, results via mass analysis)}$$

## Calculated Media Closure Criteria for Residential Soil Ingestion, Non-Carcinogens

### Example of Calculation with Cell References

RfD<sub>o</sub> (mg/kg-day)= XXX

HI=	1.0		
IR <sub>c</sub> (mg/day)=	200	IR <sub>a</sub> (mg/day)=	100
ED <sub>c</sub> (years)=	6	ED <sub>a</sub> (years)=	24
EF (days/year)=	365	EF (days/year)=	365
CF (kg/mg)=	0.000001	CF (kg/mg)=	0.000001
BW <sub>c</sub> (kg)=	15	BW <sub>a</sub> (kg)=	70
AT <sub>c</sub> (days)=	2190	AT <sub>a</sub> (days)=	8760

$$\text{Residential DEC} = (B4*B6)/(((B7*B8*B9*B10)/(B11*B12))+((E7*E8*E9*E10)/(E11*E12)))$$

Results of calculation are in mg/kg.

### Tin

RfD<sub>o</sub> (mg/kg-day)= 0.6 (EPA-NCEA Regional Support Provisional Value)

HI=	1.0		
IR <sub>c</sub> (mg/day)=	200	IR <sub>a</sub> (mg/day)=	100
ED <sub>c</sub> (years)=	6	ED <sub>a</sub> (years)=	24
EF (days/year)=	365	EF (days/year)=	365
CF (kg/mg)=	0.000001	CF (kg/mg)=	0.000001
BW <sub>c</sub> (kg)=	15	BW <sub>a</sub> (kg)=	70
AT <sub>c</sub> (days)=	2190	AT <sub>a</sub> (days)=	8760

$$\text{Residential DEC} = 40,645 \text{ mg/kg}$$

## APPENDIX E

### January 13, 2000 Sampling Results



## FACSIMILE COVER PAGE

Date: February 4, 2000

To: Mike C.

Firm: HRP

Fax Number: 860 793-6871

From: Harry M

Total number of pages to be sent (including cover sheet):

Hard Copy to follow: YES \_\_\_\_\_ NO \_\_\_\_\_

Message:

Report.

Thank you

Harry

\*\*\*\*\*  
This message is intended only for the use of the individual to whom, or entity to which, it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is prohibited. If you have received this communication in error, please notify us immediately by telephone (collect), and return the original message to us at the above address. Thank you.  
\*\*\*\*\*

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 014 - NMP 2

EAS Project Number: 00010195

EAS Sample Number: 00010195-06

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	95.6	1.0	%	01/20/00
Sulfide-Total, Solid	10	10	mg/kg	01/21/00
Arsenic, Leachable	BDL	0.10	mg/L	01/25/00
Arsenic, Solid	BDL	2.0	mg/kg	01/19/00
Barium, Leachable	0.58	0.0050	mg/L	01/24/00
Barium, Solid	81	0.10	mg/kg	01/19/00
Cadmium, Leachable	BDL	0.010	mg/L	01/24/00
Cadmium, Solid	4.4	0.10	mg/kg	01/19/00
Chromium, Leachable	0.68	0.020	mg/L	01/24/00
Chromium, Solid	8.6	0.40	mg/kg	01/19/00
Copper, Leachable	0.92	0.010	mg/L	01/24/00
Copper, Solid	170	0.20	mg/kg	01/19/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	64	1.0	mg/kg	01/19/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/18/00
Nickel, Leachable	0.44	0.020	mg/L	01/24/00
Nickel, Solid	47	0.40	mg/kg	01/19/00
Tin, Leachable	0.066	0.010	mg/L	01/24/00
Tin, Solid	180	0.20	mg/kg	01/19/00
Zinc, Leachable	7.3	0.0050	mg/L	01/24/00
Zinc, Solid	510	0.10	mg/kg	01/19/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	1200	330	ug/kg	01/29/00
Benzyl Alcohol	BDL	330	ug/kg	01/29/00
Volatile Organic Compounds, Solid				
Acetone	36	25	ug/kg	01/27/00
2-Butanone	BDL	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
Ethyl Benzene	BDL	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit



HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 014 - NMP 2

EAS Project Number: 00010195

EAS Sample Number: 00010195-06

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	BDL	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	BDL	10	ug/kg	01/27/00
Xylene	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit

**FACSIMILE COVER PAGE**

Date: February 2, 2000

To: Mr. Greg Strong

Firm: MacDermid

Fax Number: 203 575-5916

From: Greg

Total number of pages to be sent (including cover sheet):

Hard Copy to follow: YES \_\_\_\_\_ NO \_\_\_\_\_

Message:

Attached are the analytical reports for the concrete samples.

Thank you,

.....  
This message is intended only for the use of the individual to whom, or entity to which, it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is prohibited. If you have received this communication in error, please notify us immediately by telephone (collect), and return the original message to us at the above address. Thank you.  
.....

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 004 - Solder St. 2

EAS Project Number: 00010195

EAS Sample Number: 00010195-01

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	82.5	1.0	%	01/20/00
Sulfide-Total, Solid	BDL	10	mg/kg	01/21/00
Barium, Leachable	0.096	0.0050	mg/L	01/24/00
Barium, Solid	170	0.10	mg/kg	01/18/00
Cadmium, Leachable	0.077	0.010	mg/L	01/24/00
Cadmium, Solid	49	0.10	mg/kg	01/18/00
Chromium, Leachable	1.3	0.020	mg/L	01/24/00
Chromium, Solid	730	0.40	mg/kg	01/18/00
Copper, Leachable	5.9	0.010	mg/L	01/24/00
Copper, Solid	3000	0.20	mg/kg	01/18/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	1300	1.0	mg/kg	01/18/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/17/00
Nickel, Leachable	0.17	0.020	mg/L	01/24/00
Nickel, Solid	90	0.40	mg/kg	01/18/00
Tin, Leachable	22	0.010	mg/L	01/24/00
Tin, Solid	12000	0.20	mg/kg	01/18/00
Zinc, Leachable	0.65	0.0050	mg/L	01/24/00
Zinc, Solid	210	0.10	mg/kg	01/18/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	01/31/00
Butyl benzylphthalate	147000	330	ug/kg	01/31/00
Di-n-butylphthalate	BDL	330	ug/kg	01/31/00
Di-n-octylphthalate	BDL	330	ug/kg	01/31/00
Benzyl Alcohol	BDL	330	ug/kg	01/31/00
Volatile Organic Compounds, Solid				
Acetone	69	25	ug/kg	01/27/00
2-Butanone	17	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
1,4-Dioxane	BDL	100	ug/kg	01/27/00
Ethyl Benzene	16	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 004 - Solder St. 2

EAS Project Number: 00010195

EAS Sample Number: 00010195-01

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Methylene Chloride	13	10	ug/kg	01/27/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	13	10	ug/kg	01/27/00
Toluene	BDL	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	140	10	ug/kg	01/27/00
Xylene	BDL	10	ug/kg	01/27/00

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: Q10 - Equip. Blank

EAS Project Number: 00010195

EAS Sample Number: 00010195-02

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Water	BDL	0.010	mg/L	01/25/00
Sulfide, Water	BDL	10	mg/L	01/21/00
Arsenic, Water	BDL	0.10	mg/L	01/20/00
Barium, Water	BDL	0.0050	mg/L	01/19/00
Cadmium, Water	BDL	0.0050	mg/L	01/19/00
Chromium, Water	BDL	0.020	mg/L	01/19/00
Copper, Water	BDL	0.010	mg/L	01/19/00
Lead, Water	BDL	0.050	mg/L	01/19/00
Metals Digestion for 200.7, Water	Completed			01/18/00
Nickel, Water	BDL	0.020	mg/L	01/19/00
Tin, Water	BDL	0.010	mg/L	01/19/00
Zinc, Water	0.026	0.010	mg/L	01/19/00
BNA Extraction, Water	Completed			01/20/00
Method 8270, Water				
Bis (2-ethylhexyl) phthalate	BDL	10	ug/L	02/02/00
Butyl benzylphthalate	BDL	10	ug/L	02/02/00
Di-n-butylphthalate	BDL	10	ug/L	02/02/00
Di-n-octylphthalate	BDL	10	ug/L	02/02/00
Benzyl Alcohol	BDL	10	ug/L	02/02/00
Volatile Organic Compounds, Water				
Volatile Organic Compounds, Water				
Acetone	5	0.50	ug/L	01/18/00
Dichlorofluoromethane	BDL	0.50	ug/L	01/18/00
Chloromethane	BDL	0.50	ug/L	01/18/00
2-Butanone	BDL	0.50	ug/L	01/18/00
Chlorobenzene	BDL	0.50	ug/L	01/18/00
Vinyl Chloride	BDL	0.50	ug/L	01/18/00
1,4-Dioxane	BDL	0.50	ug/L	01/18/00
Bromomethane	BDL	0.50	ug/L	01/18/00
Ethyl Benzene	BDL	0.50	ug/L	01/18/00
Chloroethane	BDL	0.50	ug/L	01/18/00
Trichlorofluoromethane	BDL	0.50	ug/L	01/18/00
Isobutanol	BDL	0.50	ug/L	01/18/00
Acetone	5.0	5.0	ug/L	01/18/00
Methylene Chloride	BDL	0.50	ug/L	01/18/00
1,1- Dichloroethene	BDL	0.50	ug/L	01/18/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntington Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 010 - Equip. Blank

EAS Project Number: 00010195

EAS Sample Number: 00010195-02

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
4-Methyl-2-Pentanone	BDL	0.50	ug/L	01/18/00
Tetrachloroethylene	BDL	0.50	ug/L	01/18/00
Methylene Chloride	BDL	0.50	ug/L	01/18/00
Toluene	BDL	0.50	ug/L	01/18/00
Trans-1,2-Dichloroethene	BDL	0.50	ug/L	01/18/00
1,1,1-Trichloroethane	BDL	0.50	ug/L	01/18/00
MTBE	BDL	0.50	ug/L	01/18/00
1,1-Dichloroethane	BDL	0.50	ug/L	01/18/00
Trichlorofluoromethane	BDL	0.50	ug/L	01/18/00
Trichloroethylene	BDL	0.50	ug/L	01/18/00
2-Butanone	BDL	5.0	ug/L	01/18/00
Xylene	BDL	0.50	ug/L	01/18/00
cis-1,2-Dichloroethene	BDL	0.50	ug/L	01/18/00
2,2-Dichloropropane	BDL	0.50	ug/L	01/18/00
Chloroform	BDL	0.50	ug/L	01/18/00
Bromochloromethane	BDL	0.50	ug/L	01/18/00
1,1,1-Trichloroethane	BDL	0.50	ug/L	01/18/00
1,1-Dichloropropene	BDL	0.50	ug/L	01/18/00
1,2-Dichloroethane	BDL	0.50	ug/L	01/18/00
Carbon Tetrachloride	BDL	0.50	ug/L	01/18/00
Benzene	BDL	0.50	ug/L	01/18/00
Trichloroethene	BDL	0.50	ug/L	01/18/00
1,2-Dichloropropane	BDL	0.50	ug/L	01/18/00
Dibromomethane	BDL	0.50	ug/L	01/18/00
Bromodichloromethane	BDL	0.50	ug/L	01/18/00
4-Methyl-2-Pentanone	BDL	5.0	ug/L	01/18/00
cis-1,3-Dichloropropene	BDL	0.50	ug/L	01/18/00
Toluene	BDL	0.50	ug/L	01/18/00
Trans-1,3-Dichloropropene	BDL	0.50	ug/L	01/18/00
1,1,2-Trichloroethane	BDL	0.50	ug/L	01/18/00
2-Hexanone	BDL	5.0	ug/L	01/18/00
1,3-Dichloropropane	BDL	0.50	ug/L	01/18/00
Dibromochloromethane	BDL	0.50	ug/L	01/18/00
Tetrachloroethylene	BDL	0.50	ug/L	01/18/00
1,2-Dibromoethane	BDL	0.50	ug/L	01/18/00
Chlorobenzene	BDL	0.50	ug/L	01/18/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc, 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 010 - Equip. Blank

EAS Project Number: 00010195

EAS Sample Number: 00010195-02

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
1,1,1,2-Tetrachloroethane	BDL	0.50	ug/L	01/18/00
Ethylbenzene	BDL	0.50	ug/L	01/18/00
m/p-Xylene	BDL	0.50	ug/L	01/18/00
Styrene	BDL	0.50	ug/L	01/18/00
O-Xylene	BDL	0.50	ug/L	01/18/00
Bromoform	BDL	0.50	ug/L	01/18/00
1,1,2,2-Tetrachloroethane	BDL	0.50	ug/L	01/18/00
Isopropylbenzene	BDL	0.50	ug/L	01/18/00
1,2,3-Trichloropropane	BDL	0.50	ug/L	01/18/00
Bromobenzene	BDL	0.50	ug/L	01/18/00
n-Propylbenzene	BDL	0.50	ug/L	01/18/00
2-Chlorotoluene	BDL	0.50	ug/L	01/18/00
4-Chlorotoluene	BDL	0.50	ug/L	01/18/00
1,3,5-Trimethylbenzene	BDL	0.50	ug/L	01/18/00
tert-Butylbenzene	BDL	0.50	ug/L	01/18/00
1,2,4-Trimethylbenzene	BDL	0.50	ug/L	01/18/00
sec-Butylbenzene	BDL	0.50	ug/L	01/18/00
1,3-Dichlorobenzene	BDL	0.50	ug/L	01/18/00
1,4-Dichlorobenzene	BDL	0.50	ug/L	01/18/00
p-Isopropyltoluene	BDL	0.50	ug/L	01/18/00
1,2-Dichlorobenzene	BDL	0.50	ug/L	01/18/00
n-Butylbenzene	BDL	0.50	ug/L	01/18/00
1,2-Dibromo-3-Chloropropane	BDL	0.50	ug/L	01/18/00
1,2,4-Trichlorobenzene	BDL	0.50	ug/L	01/18/00
Napthalene	BDL	0.50	ug/L	01/18/00
Hexachlorobutadiene	BDL	0.50	ug/L	01/18/00
1,2,3-Trichlorobenzene	BDL	0.50	ug/L	01/18/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 011 - Trip Blank

EAS Project Number: 00010195

EAS Sample Number: 00010195-03

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Water	BDL	0.010	mg/L	01/25/00
Sulfide, Water	BDL	10	mg/L	01/21/00
Arsenic, Water	BDL	0.10	mg/L	01/20/00
Barium, Water	BDL	0.0050	mg/L	01/19/00
Cadmium, Water	BDL	0.0050	mg/L	01/19/00
Chromium, Water	BDL	0.020	mg/L	01/19/00
Copper, Water	BDL	0.010	mg/L	01/19/00
Lead, Water	BDL	0.050	mg/L	01/19/00
Metals Digestion for 200.7, Water	Completed			01/18/00
Nickel, Water	BDL	0.020	mg/L	01/19/00
Tin, Water	BDL	0.010	mg/L	01/19/00
Zinc, Water	0.017	0.010	mg/L	01/19/00
BNA Extraction, Water	Completed			01/20/00
Method 8270, Water				
Bis (2-ethylhexyl) phthalate	BDL	10	ug/L	02/02/00
Butyl benzylphthalate	BDL	10	ug/L	02/02/00
Di-n-butylphthalate	BDL	10	ug/L	02/02/00
Di-n-octylphthalate	BDL	10	ug/L	02/02/00
Benzyl Alcohol	BDL	10	ug/L	02/02/00
Volatile Organic Compounds, Water				
Volatile Organic Compounds, Water				
Acetone	6.4	0.50	ug/L	01/18/00
Dichlorofluoromethane	BDL	0.50	ug/L	01/18/00
2-Butanone	BDL	0.50	ug/L	01/18/00
Chloromethane	BDL	0.50	ug/L	01/18/00
Chlorobenzene	BDL	0.50	ug/L	01/18/00
Vinyl Chloride	BDL	0.50	ug/L	01/18/00
Bromomethane	BDL	0.50	ug/L	01/18/00
1,4-Dioxane	BDL	0.50	ug/L	01/18/00
Chloroethane	BDL	0.50	ug/L	01/18/00
Ethyl Benzene	BDL	0.50	ug/L	01/18/00
Isobutanol	BDL	0.50	ug/L	01/18/00
Trichlorofluoromethane	BDL	0.50	ug/L	01/18/00
Acetone	6.4	5.0	ug/L	01/18/00
Methylene Chloride	BDL	0.50	ug/L	01/18/00
1,1-Dichloroethene	BDL	0.50	ug/L	01/18/00

BDL = Below Detection Limit



HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 011 - Trip Blank

EAS Project Number: 00010195

EAS Sample Number: 00010195-03

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
4-Methyl-2-Pentanone	BDL	0.50	ug/L	01/18/00
Methylene Chloride	BDL	0.50	ug/L	01/18/00
Tetrachloroethylene	BDL	0.50	ug/L	01/18/00
Toluene	BDL	0.50	ug/L	01/18/00
Trans-1,2-Dichloroethene	BDL	0.50	ug/L	01/18/00
MTBE	BDL	0.50	ug/L	01/18/00
1,1,1-Trichloroethane	BDL	0.50	ug/L	01/18/00
1,1-Dichloroethane	BDL	0.50	ug/L	01/18/00
Trichlorofluoromethane	BDL	0.50	ug/L	01/18/00
2-Butanone	BDL	5.0	ug/L	01/18/00
Trichloroethylene	BDL	0.50	ug/L	01/18/00
cis-1,2-Dichloroethene	BDL	0.50	ug/L	01/18/00
Xylene	BDL	0.50	ug/L	01/18/00
2,2-Dichloropropane	BDL	0.50	ug/L	01/18/00
Chloroform	BDL	0.50	ug/L	01/18/00
Bromochloromethane	BDL	0.50	ug/L	01/18/00
1,1,1-Trichloroethane	BDL	0.50	ug/L	01/18/00
1,1-Dichloropropene	BDL	0.50	ug/L	01/18/00
1,2-Dichloroethane	BDL	0.50	ug/L	01/18/00
Carbon Tetrachloride	BDL	0.50	ug/L	01/18/00
Benzene	BDL	0.50	ug/L	01/18/00
Trichloroethene	BDL	0.50	ug/L	01/18/00
1,2-Dichloropropane	BDL	0.50	ug/L	01/18/00
Dibromomethane	BDL	0.50	ug/L	01/18/00
Bromodichloromethane	BDL	0.50	ug/L	01/18/00
4-Methyl-2-Pentanone	BDL	5.0	ug/L	01/18/00
cis-1,3-Dichloropropene	BDL	0.50	ug/L	01/18/00
Toluene	BDL	0.50	ug/L	01/18/00
Trans-1,3-Dichloropropene	BDL	0.50	ug/L	01/18/00
1,1,2-Trichloroethane	BDL	0.50	ug/L	01/18/00
2-Hexanone	BDL	5.0	ug/L	01/18/00
1,3-Dichloropropane	BDL	0.50	ug/L	01/18/00
Dibromochloromethane	BDL	0.50	ug/L	01/18/00
Tetrachloroethylene	BDL	0.50	ug/L	01/18/00
1,2-Dibromoethane	BDL	0.50	ug/L	01/18/00
Chlorobenzene	BDL	0.50	ug/L	01/18/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 011 - Trip Blank

EAS Project Number: 00010195

EAS Sample Number: 00010195-03

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
1,1,1,2-Tetrachloroethane	BDL	0.50	ug/L	01/18/00
Ethylbenzene	BDL	0.50	ug/L	01/18/00
m/p-Xylene	BDL	0.50	ug/L	01/18/00
Styrene	BDL	0.50	ug/L	01/18/00
O-Xylene	BDL	0.50	ug/L	01/18/00
Bromoform	BDL	0.50	ug/L	01/18/00
1,1,2,2-Tetrachloroethane	BDL	0.50	ug/L	01/18/00
Isopropylbenzene	BDL	0.50	ug/L	01/18/00
1,2,3-Trichloropropane	BDL	0.50	ug/L	01/18/00
Bromobenzene	BDL	0.50	ug/L	01/18/00
n-Propylbenzene	BDL	0.50	ug/L	01/18/00
2-Chlorotoluene	BDL	0.50	ug/L	01/18/00
4-Chlorotoluene	BDL	0.50	ug/L	01/18/00
1,3,5-Trimethylbenzene	BDL	0.50	ug/L	01/18/00
tert-Butylbenzene	BDL	0.50	ug/L	01/18/00
1,2,4-Trimethylbenzene	BDL	0.50	ug/L	01/18/00
sec-Butylbenzene	BDL	0.50	ug/L	01/18/00
1,3-Dichlorobenzene	BDL	0.50	ug/L	01/18/00
1,4-Dichlorobenzene	BDL	0.50	ug/L	01/18/00
p-Isopropyltoluene	BDL	0.50	ug/L	01/18/00
1,2-Dichlorobenzene	BDL	0.50	ug/L	01/18/00
n-Butylbenzene	BDL	0.50	ug/L	01/18/00
1,2-Dibromo-3-Chloropropane	BDL	0.50	ug/L	01/18/00
1,2,4-Trichlorobenzene	BDL	0.50	ug/L	01/18/00
Napthalene	BDL	0.50	ug/L	01/18/00
Hexachlorobutadiene	BDL	0.50	ug/L	01/18/00
1,2,3-Trichlorobenzene	BDL	0.50	ug/L	01/18/00

BDL = Below Detection Limit

## HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 012 - 2nd Slab

EAS Project Number: 00010195

EAS Sample Number: 00010195-04

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	97.2	1.0	%	01/20/00
Sulfide Total, Solid	17	10	mg/kg	01/21/00
Barium, Leachable	0.018	0.0050	mg/L	01/24/00
Barium, Solid	8.0	0.10	mg/kg	01/19/00
Cadmium, Leachable	0.013	0.010	mg/L	01/24/00
Cadmium, Solid	76	0.10	mg/kg	01/19/00
Chromium, Leachable	BDL	0.020	mg/L	01/24/00
Chromium, Solid	1800	0.40	mg/kg	01/19/00
Copper, Leachable	0.052	0.010	mg/L	01/24/00
Copper, Solid	1300	0.20	mg/kg	01/19/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	90	1.0	mg/kg	01/19/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/18/00
Nickel, Leachable	0.55	0.020	mg/L	01/24/00
Nickel, Solid	360	0.40	mg/kg	01/19/00
Tin, Leachable	0.08	0.010	mg/L	01/24/00
Tin, Solid	890	0.20	mg/kg	01/19/00
Zinc, Leachable	0.037	0.0050	mg/L	01/24/00
Zinc, Solid	61	0.10	mg/kg	01/19/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	01/29/00
Butyl benzylphthalate	BDL	330	ug/kg	01/29/00
Di-n-butylphthalate	BDL	330	ug/kg	01/29/00
Di-n-octylphthalate	BDL	330	ug/kg	01/29/00
Benzyl Alcohol	BDL	330	ug/kg	01/29/00
Volatile Organic Compounds, Solid				
Acetone	95	25	ug/kg	01/27/00
2-Butanone	25	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
1,4-Dioxane	BDL	100	ug/kg	01/27/00
Ethyl Benzene	BDL	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 012 - 2nd Slab

EAS Project Number: 00010195

EAS Sample Number: 00010195-04

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Methylene Chloride	12	10	ug/kg	01/27/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	BDL	10	ug/kg	01/27/00
Toluene	BDL	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	11	10	ug/kg	01/27/00
Xylene	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 013 - NMP 1

EAS Project Number: 00010195

EAS Sample Number: 00010195-05

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	95.6	1.0	%	01/20/00
Sulfide-Total, Solid	BDL	10	mg/kg	01/21/00
Arsenic, Leachable	BDL	0.10	mg/L	01/25/00
Arsenic, Solid	BDL	2.0	mg/kg	01/19/00
Barium, Leachable	0.48	0.0050	mg/L	01/24/00
Barium, Solid	57	0.10	mg/kg	01/19/00
Cadmium, Leachable	BDL	0.010	mg/L	01/24/00
Cadmium, Solid	3.1	0.10	mg/kg	01/19/00
Chromium, Leachable	0.64	0.020	mg/L	01/24/00
Chromium, Solid	51	0.40	mg/kg	01/19/00
Copper, Leachable	1.1	0.010	mg/L	01/24/00
Copper, Solid	150	0.20	mg/kg	01/19/00
Lead, Leachable	0.062	0.050	mg/L	01/24/00
Lead, Solid	45	1.0	mg/kg	01/19/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/18/00
Nickel, Leachable	0.56	0.020	mg/L	01/24/00
Nickel, Solid	44	0.40	mg/kg	01/19/00
Tin, Leachable	0.029	0.010	mg/L	01/24/00
Tin, Solid	95	0.20	mg/kg	01/19/00
Zinc, Leachable	8.6	0.0050	mg/L	01/24/00
Zinc, Solid	570	0.10	mg/kg	01/19/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	4700	330	ug/kg	01/31/00
Benzyl Alcohol	BDL	330	ug/kg	01/31/00
Volatile Organic Compounds, Solid				
Acetone	63	25	ug/kg	01/27/00
2-Butanone	BDL	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
Ethyl Benzene	BDL	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 013 - NMP 1

EAS Project Number: 00010195

EAS Sample Number: 00010195-05

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	BDL	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	BDL	10	ug/kg	01/27/00
Xylene	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 013 - NMP 2

EAS Project Number: 00010195

EAS Sample Number: 00010195-06

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	95.6	1.0	%	01/20/00
Sulfide-Total, Solid	10	10	mg/kg	01/21/00
Arsenic, Leachable	BDL	0.10	mg/L	01/25/00
Arsenic, Solid	BDL	2.0	mg/kg	01/19/00
Barium, Leachable	0.58	0.0050	mg/L	01/24/00
Barium, Solid	81	0.10	mg/kg	01/19/00
Cadmium, Leachable	BDL	0.010	mg/L	01/24/00
Cadmium, Solid	4.4	0.10	mg/kg	01/19/00
Chromium, Leachable	0.68	0.020	mg/L	01/24/00
Chromium, Solid	8.6	0.40	mg/kg	01/19/00
Copper, Leachable	0.92	0.010	mg/L	01/24/00
Copper, Solid	170	0.20	mg/kg	01/19/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	64	1.0	mg/kg	01/19/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/18/00
Nickel, Leachable	0.44	0.020	mg/L	01/24/00
Nickel, Solid	47	0.40	mg/kg	01/19/00
Tin, Leachable	0.066	0.010	mg/L	01/24/00
Tin, Solid	180	0.20	mg/kg	01/19/00
Zinc, Leachable	7.3	0.0050	mg/L	01/24/00
Zinc, Solid	510	0.10	mg/kg	01/19/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure	Completed			01/19/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	1200	330	ug/kg	01/29/00
Benzyl Alcohol	BDL	330	ug/kg	01/29/00
Volatile Organic Compounds, Solid				
Acetone	36	25	ug/kg	01/27/00
2-Butanone	BDL	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
Ethyl Benzene	BDL	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 013 - NMP 2

EAS Project Number: 00010195

EAS Sample Number: 00010195-06

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	BDL	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	BDL	10	ug/kg	01/27/00
Xylene	BDL	10	ug/kg	01/27/00

BDL = Below Detection Limit



HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 005 - Flam. Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-07

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	95.4	1.0	%	01/20/00
Sulfide-Total, Solid	BDL	10	mg/kg	01/21/00
Barium, Leachable	0.26	0.0050	mg/L	01/24/00
Barium, Solid	99	0.10	mg/kg	01/18/00
Cadmium, Leachable	BDL	0.010	mg/L	01/24/00
Cadmium, Solid	5.0	0.10	mg/kg	01/18/00
Chromium, Leachable	0.033	0.020	mg/L	01/24/00
Chromium, Solid	55	0.40	mg/kg	01/18/00
Copper, Leachable	0.18	0.010	mg/L	01/24/00
Copper, Solid	150	0.20	mg/kg	01/18/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	43	1.0	mg/kg	01/18/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/17/00
Nickel, Leachable	0.40	0.020	mg/L	01/24/00
Nickel, Solid	50	0.40	mg/kg	01/18/00
Tin, Leachable	0.016	0.010	mg/L	01/24/00
Tin, Solid	20	0.20	mg/kg	01/18/00
Zinc, Leachable	2.5	0.0050	mg/L	01/24/00
Zinc, Solid	470	0.10	mg/kg	01/18/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	2300	330	ug/kg	01/31/00
Di-n-butylphthalate	52000	330	ug/kg	01/31/00
Volatile Organic Compounds, Solid				
Acetone	90	25	ug/kg	01/27/00
2-Butanone	BDL	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
1,4-Dioxane	BDL	100	ug/kg	01/27/00
Ethyl Benzene	2000	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	13	10	ug/kg	01/27/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	1400	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 005 - Flam. Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-07

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	3000	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	120	10	ug/kg	01/27/00
Xylene	14000	10	ug/kg	01/27/00

BDL = Below Detection Limit

## HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 006 - Flam. Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-08

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	95.5	1.0	%	01/20/00
Sulfide-Total, Solid	BDL	10	mg/kg	01/21/00
Barium, Leachable	0.31	0.0050	mg/L	01/24/00
Barium, Solid	90	0.10	mg/kg	01/18/00
Cadmium, Leachable	BDL	0.010	mg/L	01/24/00
Cadmium, Solid	4.6	0.10	mg/kg	01/18/00
Chromium, Leachable	D.L. D.P.S. 0.05	0.020	mg/L	01/24/00
Chromium, Solid	56	0.40	mg/kg	01/18/00
Copper, Leachable	0.41	0.010	mg/L	01/24/00
Copper, Solid	170	0.20	mg/kg	01/18/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	44	1.0	mg/kg	01/18/00
Metals Digestion for 6010B, Leachable	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/17/00
Nickel, Leachable	0.49	0.020	mg/L	01/24/00
Nickel, Solid	53	0.40	mg/kg	01/18/00
Tin, Leachable	0.042	0.010	mg/L	01/24/00
Tin, Solid	110	0.20	mg/kg	01/18/00
Zinc, Leachable	3.9	0.0050	mg/L	01/24/00
Zinc, Solid	300	0.10	mg/kg	01/18/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	830	330	ug/kg	01/31/00
Di-n-butylphthalate	61000	330	ug/kg	01/31/00
Volatile Organic Compounds, Solid				
Acetone	150	25	ug/kg	01/27/00
2-Butanone	200	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
1,4-Dioxane	290	100	ug/kg	01/27/00
Ethyl Benzene	950	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	BDL	10	ug/kg	01/27/00
4-Methyl-2-Pentanone	BDL	100	ug/kg	01/27/00
Tetrachloroethylene	23	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 006 - Flam. Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-08

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	99	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	24	10	ug/kg	01/27/00
Xylene	5900	10	ug/kg	01/27/00

BDL = Below Detection Limit

## HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 007 - Flam. Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-09

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	94.3	1.0	%	01/20/00
Sulfide-Total, Solid	BDL	10	mg/kg	01/21/00
Barium, Leachable	0.27	0.0050	mg/L	01/24/00
Barium, Solid	69	0.10	mg/kg	01/18/00
Cadmium, Leachable	BDL	0.010	mg/L	01/24/00
Cadmium, Solid	4.2	0.10	mg/kg	01/18/00
Chromium, Leachable	0.05 0.27	0.020	mg/L	01/24/00
Chromium, Solid	58	0.40	mg/kg	01/18/00
Copper, Leachable	0.38	0.010	mg/L	01/24/00
Copper, Solid	150	0.20	mg/kg	01/18/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	43	1.0	mg/kg	01/18/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/17/00
Nickel, Leachable	0.48	0.020	mg/L	01/24/00
Nickel, Solid	50	0.40	mg/kg	01/18/00
Tin, Leachable	BDL	0.010	mg/L	01/24/00
Tin, Solid	43	0.20	mg/kg	01/18/00
Zinc, Leachable	3.8	0.0050	mg/L	01/24/00
Zinc, Solid	480	0.10	mg/kg	01/18/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	370	330	ug/kg	01/31/00
Di-n-butylphthalate	31000	330	ug/kg	01/31/00
Volatile Organic Compounds, Solid				
Acetone	100	25	ug/kg	01/27/00
2-Butanone	BDL	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
1,4-Dioxane	BDL	100	ug/kg	01/27/00
Ethyl Benzene	1100	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	BDL	10	ug/kg	01/27/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	13	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 007 - Flam. Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-09

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	100	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	BDL	10	ug/kg	01/27/00
Xylene	7000	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 008 - Flam. Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-10

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	95.5	1.0	%	01/20/00
Sulfide-Total, Solid	BDL	10	mg/kg	01/21/00
Barium, Leachable	0.30	0.0050	mg/L	01/24/00
Barium, Solid	74	0.10	mg/kg	01/18/00
Cadmium, Leachable	BDL	0.010	mg/L	01/24/00
Cadmium, Solid	4.0	0.10	mg/kg	01/18/00
Chromium, Leachable	BDL	0.020	mg/L	01/24/00
Chromium, Solid	44	0.40	mg/kg	01/18/00
Copper, Leachable	0.22	0.010	mg/L	01/24/00
Copper, Solid	120	0.20	mg/kg	01/18/00
Lead, Leachable	BDL	0.050	mg/L	01/24/00
Lead, Solid	36	1.0	mg/kg	01/18/00
Metals Digestion for 6010B, Leachate	Completed			01/21/00
Metals Digestion for 6010B, Solid	Completed			01/17/00
Nickel, Leachable	0.44	0.020	mg/L	01/24/00
Nickel, Solid	41	0.40	mg/kg	01/18/00
Tin, Leachable	0.029	0.010	mg/L	01/24/00
Tin, Solid	19	0.20	mg/kg	01/18/00
Zinc, Leachable	3.0	0.0050	mg/L	01/24/00
Zinc, Solid	380	0.10	mg/kg	01/18/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure	Completed			01/19/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	440	330	ug/kg	01/31/00
Di-n-butylphthalate	27000	330	ug/kg	01/31/00
Volatile Organic Compounds, Solid				
Acetone	63	25	ug/kg	01/27/00
2-Butanone	47	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
1,4-Dioxane	360	100	ug/kg	01/27/00
Ethyl Benzene	1100	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	BDL	10	ug/kg	01/27/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	76	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 008 - Flam Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-10

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	210	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	BDL	10	ug/kg	01/27/00
Xylene	7700	10	ug/kg	01/27/00

BDL = Below Detection Limit



HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 009 - Flam Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-11

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Solid	BDL	5.0	mg/kg	01/24/00
Percent Solids, Solid	95.4	1.0	%	01/20/00
Sulfide-Total, Solid	BDL	10	mg/kg	01/21/00
Barium, Leachable	0.13	0.0050	mg/L	01/25/00
Barium, Solid	71	0.10	mg/kg	01/18/00
Cadmium, Leachable	BDL	0.010	mg/L	01/25/00
Cadmium, Solid	3.6	0.10	mg/kg	01/18/00
Chromium, Leachable	BDL	0.020	mg/L	01/25/00
Chromium, Solid	52	0.40	mg/kg	01/18/00
Copper, Leachable	0.16	0.010	mg/L	01/25/00
Copper, Solid	140	0.20	mg/kg	01/18/00
Lead, Leachable	BDL	0.050	mg/L	01/25/00
Lead, Solid	40	1.0	mg/kg	01/18/00
Metals Digestion for 6010B, Leachate	Completed			01/24/00
Metals Digestion for 6010B, Solid	Completed			01/17/00
Nickel, Leachable	0.14	0.020	mg/L	01/25/00
Nickel, Solid	48	0.40	mg/kg	01/18/00
Tin, Leachable	0.023	0.010	mg/L	01/25/00
Tin, Solid	28	0.20	mg/kg	01/18/00
Zinc, Leachable	1.3	0.0050	mg/L	01/25/00
Zinc, Solid	460	0.10	mg/kg	01/18/00
BNA Extraction, Solid	Completed			01/27/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			01/19/00
Bis (2-ethylhexyl) phthalate	720	330	ug/kg	01/31/00
Di-n-butylphthalate	18000	330	ug/kg	01/31/00
Volatile Organic Compounds, Solid				
Acetone	78	10	ug/kg	01/27/00
2-Butanone	190	10	ug/kg	01/27/00
Chlorobenzene	BDL	10	ug/kg	01/27/00
1,4-Dioxane	170	100	ug/kg	01/27/00
Ethyl Benzene	1300	10	ug/kg	01/27/00
Isobutanol	BDL	10	ug/kg	01/27/00
Methylene Chloride	BDL	10	ug/kg	01/27/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	01/27/00
Tetrachloroethylene	52	10	ug/kg	01/27/00

BDL = Below Detection Limit

HRP Associates, Inc.

Location Collected: MacDermid Inc., 526 Huntington Ave., Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 009 - Flam: Stor.

EAS Project Number: 00010195

EAS Sample Number: 00010195-11

Date Sample Received: 01/13/00

Parameter	Data	Detection Limit	Units	Analysis Date
Toluene	220	10	ug/kg	01/27/00
1,1,1-Trichloroethane	BDL	10	ug/kg	01/27/00
Trichlorofluoromethane	BDL	10	ug/kg	01/27/00
Trichloroethylene	16	10	ug/kg	01/27/00
Xylene	9000	10	ug/kg	01/27/00

BDL = Below Detection Limit



HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

Sheet 1 of 1

CHAIN OF CUSTODY

Job Number MAC 0028.PC

Project Manager RDM

Place & Address of Collection MACDERMID, INC

Samplers Name (Signature)

526 HUNTINGDEN AVE WATERBURY, CT

Tim A. Clark

Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
<u>003</u>	<u>SOLDER ST. 1</u>	<u>GLASS</u>	<u>802</u>	<u>COOL</u>			<u>SOIL</u>	<u>SEE BELOW</u>
<u>004</u>	<u>SOLDER ST. 2</u>	<u>"</u>	<u>"</u>	<u>"</u>			<u>"</u>	<u>"</u>
<u>010</u>	<u>EMPTY BLANK</u>	<u>PLASTIC GLASS</u>		<u>COOL</u>			<u>WATER</u>	<u>"</u>
<u>011</u>	<u>TRIP BLANK</u>	<u>"</u>		<u>"</u>			<u>"</u>	<u>"</u>
<u>012</u>	<u>2" MP SLAB</u>	<u>GLASS</u>	<u>2802</u>	<u>COOL</u>			<u>CONCRETE</u>	<u>"</u>

Relinquished By (Signature)

Tim A. Clark

Received By (Signature)

John J. Hall

Date 1.13.00

Time 15:55

Relinquished By (Signature)

Received By (Signature)

Date

Time

Name & Address of Laboratory:

EAS: COMMERCIAL ST MIDDLEBURY CT

Parameters

Sample ID

SEE BELOW

Remarks: ALL PARAMETERS ON ATTACHED LIST BY MASS ANALYSIS

• IN ADDITION, ALL METALS BY EXTRACTION BY EP TOXICITY

• IN ADDITION, 610 & 011 FOR ARSENIC: BENZYL

ALCOHOL

HRP CONTACT: MIKE CHERNOSETH

Abbreviations: G - Glass P - Plastic A - Amber T - TCLP Analysis M - Mass Analysis S - SPL Analysis



**APPENDIX F**

**February 9, 2000 Sampling Results**



## FACSIMILE COVER PAGE

Date: February 22, 2000

To: Mike C.

Firm: HRP

Fax Number: 860 793-6871

From: Harry Mullin

Total number of pages to be sent (including cover sheet):

Hard Copy to follow: YES \_\_\_\_\_ NO \_\_\_\_\_

Message:

Reports.

The hardcopy will be mailed to Greg Strong.

Thank you

Harry

\*\*\*\*\*  
This message is intended only for the use of the individual to whom, or entity to which, it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is prohibited. If you have received this communication in error, please notify us immediately by telephone (collect), and return the original message to us at the above address. Thank you.  
\*\*\*\*\*

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B001 Solder Strip

SURFACE SOIL

EAS Project Number: 00020124

EAS Sample Number: 00020124-01

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.01	0.010	mg/L	02/17/00
Cadmium, Solid	10	0.10	mg/kg	02/15/00
Chromium, Leachable	0.26	0.040	mg/L	02/17/00
Copper, Leachable	0.97	0.030	mg/L	02/17/00
Copper, Solid	950	0.20	mg/kg	02/15/00
Lead, Solid	79	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	36	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	95	10	ug/kg	02/15/00



## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B002 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-02

Date Sample Received: 02/09/00

Client Project Number: MAC002S.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.010	mg/L	02/17/00
Cadmium, Solid	7.0	0.10	mg/kg	02/15/00
Chromium, Leachable	0.043	0.040	mg/L	02/17/00
Copper, Leachable	0.17	0.030	mg/L	02/17/00
Copper, Solid	500	0.20	mg/kg	02/15/00
Lead, Solid	55	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	2.6	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	15	10	ug/kg	02/18/00

BDL = Below Detection Limit

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B003 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-03

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.010	mg/L	02/17/00
Cadmium, Solid	35	0.10	mg/kg	02/15/00
Chromium, Leachable	BDL	0.040	mg/L	02/17/00
Copper, Leachable	0.086	0.030	mg/L	02/17/00
Copper, Solid	450	0.20	mg/kg	02/15/00
Lead, Solid	1700	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	0.028	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	170	10	ug/kg	02/16/00

BDL = Below Detection Limit

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B004 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-04

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.010	mg/L	02/17/00
Cadmium, Solid	5.3	0.10	mg/kg	02/15/00
Chromium, Leachable	BDL	0.040	mg/L	02/17/00
Copper, Leachable	0.12	0.030	mg/L	02/17/00
Copper, Solid	88	0.20	mg/kg	02/15/00
Lead, Solid	42	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	BDL	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	BDL	10	ug/kg	02/18/00

BDL = Below Detection Limit

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B005 Solder Strip

SURFACE SOIL

EAS Project Number: 00020124

EAS Sample Number: 00020124-05

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection: Limit	Units	Analysis Date
Cadmium, Leachable	0.084	0.010	mg/L	02/17/00
Cadmium, Solid	7.6	0.10	mg/kg	02/15/00
Chromium, Leachable	0.94	0.040	mg/L	02/17/00
Copper, Leachable	14	0.030	mg/L	02/17/00
Copper, Solid	1400	0.20	mg/kg	02/15/00
Lead, Solid	580	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	19	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	46	10	ug/kg	02/15/00

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B006 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-06

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.010	mg/L	02/17/00
Cadmium, Solid	5.8	0.10	mg/kg	02/15/00
Chromium, Leachable	BDL	0.040	mg/L	02/17/00
Copper, Leachable	0.64	0.030	mg/L	02/17/00
Copper, Solid	370	0.20	mg/kg	02/15/00
Lead, Solid	96	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	0.24	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	BDL	10	ug/kg	02/18/00

BDL = Below Detection Limit

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B007 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-07

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

1' Below original

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.010	mg/L	02/17/00
Cadmium, Solid	5.2	0.10	mg/kg	02/15/00
Chromium, Leachable	0.07	0.040	mg/L	02/17/00
Copper, Leachable	0.92	0.030	mg/L	02/17/00
Copper, Solid	2100	0.20	mg/kg	02/15/00
Lead, Solid	24	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	0.58	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	BDL	10	ug/kg	02/18/00

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B007 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-07

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

1 BELOW ORIGINAL

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.010	mg/L	02/17/00
Cadmium, Solid	5.2	0.10	mg/kg	02/15/00
Chromium, Leachable	0.07	0.040	mg/L	02/17/00
Copper, Leachable	0.92	0.030	mg/L	02/17/00
Copper, Solid	2100	0.20	mg/kg	02/15/00
Lead, Solid	24	1.0	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Tin, Leachable	0.58	0.020	mg/L	02/17/00
EP Toxicity Leaching Procedure	Completed			02/11/00
Volatile Organic Compounds, Solid				
Trichloroethylene	BDL	10	ug/kg	02/18/00

BDL = Below Detection Limit

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: CC008 Flam Stor

EAS Project Number: 00020124

EAS Sample Number: 00020124-08

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
TCLP for Volatile Organic Compounds	Completed			02/15/00
TCLP Volatile List				
Tetrachloroethene	11	10	ug/L	02/16/00
Trichloroethene	BDL	10	ug/L	02/16/00

BDL = Below Detection Limit



## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: CC009 Flam Stor

EAS Project Number: 00020124

EAS Sample Number: 00020124-09

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.010	mg/L	02/17/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
EP Toxicity Leaching Procedure	Completed			02/11/00

## MACDERMID, INC.

Location Collected: 526 Huntington Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B010 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-10

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.029	0.010	mg/L	02/17/00
Cadmium, Solid	75	0.10	mg/kg	02/15/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Nickel, Solid	420	0.40	mg/kg	02/15/00
EP Toxicity Leaching Procedure	Completed			02/11/00

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B011 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-11

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.028	0.010	mg/L	02/17/00
Cadmium, Solid	85	0.10	mg/kg	02/17/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Nickel, Solid	400	0.40	mg/kg	02/15/00
EP Toxicity Leaching Procedure	Completed			02/11/00

## MACDERMID, INC.

Location Collected: 525 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: B012 Solder Strip

EAS Project Number: 00020124

EAS Sample Number: 00020124-12

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.18	0.010	mg/L	02/17/00
Cadmium, Solid	110	0.10	mg/kg	02/17/00
Metals Digestion for 6010B, Leachate	Completed			02/14/00
Metals Digestion for 6010B, Solid	Completed			02/11/00
Nickel, Solid	450	0.40	mg/kg	02/15/00
EP Toxicity Leaching Procedure	Completed			02/11/00

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: Trip Blank

EAS Project Number: 00020124

EAS Sample Number: 00020124-13

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Water	BDL	0.010	mg/L	02/18/00
Chromium, Water	BDL	0.040	mg/L	02/18/00
Copper, Water	BDL	0.030	mg/L	02/18/00
Lead, Water	BDL	0.050	mg/L	02/18/00
Metals Digestion for 200.7, Water	Completed			02/17/00
Nickel, Water	BDL	0.020	mg/L	02/18/00
Tin, Water	BDL	0.010	mg/L	02/18/00
Zinc, Water	0.023	0.010	mg/L	02/18/00
Volatile Organic Compounds, Water				
Tetrachloroethylene	BDL	0.50	ug/L	02/15/00
Trichloroethylene	BDL	0.50	ug/L	02/15/00

BDL = Below Detection Limit

## MACDERMID, INC.

Location Collected: 526 Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 02/09/00

Sample Description: Equipment Blank

EAS Project Number: 00020124

EAS Sample Number: 00020124-14

Date Sample Received: 02/09/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Water	BDL	0.010	mg/L	02/18/00
Chromium, Water	BDL	0.040	mg/L	02/18/00
Copper, Water	BDL	0.030	mg/L	02/18/00
Lead, Water	BDL	0.050	mg/L	02/18/00
Metals Digestion for 200.7, Water	Completed			02/17/00
Nickel, Water	BDL	0.020	mg/L	02/18/00
Tin, Water	BDL	0.010	mg/L	02/18/00
Zinc, Water	0.018	0.010	mg/L	02/18/00
Volatile Organic Compounds, Water				
Tetrachloroethylene	BDL	0.50	ug/L	02/15/00
Trichloroethylene	BDL	0.50	ug/L	02/15/00



## FACSIMILE COVER PAGE

Date: February 22, 2000

To: Mike C.

Firm: HRP

Fax Number: 860 793-6871

From: Harry Mullin

Total number of pages to be sent (including cover sheet):

Hard Copy to follow: YES \_\_\_\_\_ NO \_\_\_\_\_

Message:

Reports.

Thank you  
Harry

\*\*\*\*\*  
This message is intended only for the use of the individual to whom, or entity to which, it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is prohibited. If you have received this communication in error, please notify us immediately by telephone (collect), and return the original message to us at the above address. Thank you.  
\*\*\*\*\*

## MACDERMID, INC.

Location Collected: 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 014 NMP 2

EAS Project Number: 00020096

EAS Sample Number: 00020096-02

Date Sample Received: 02/08/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.70	0.020	mg/L	02/10/00
Metals Digestion for 6010B, Leachate	Completed			02/09/00
Zinc, Leachable	0.016	0.0050	mg/L	02/10/00
EP Toxicity Leaching Procedure	Completed			02/08/00



## MACDERMID, INC.

Location Collected: 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 013 NMP 1

EAS Project Number: 00020096

EAS Sample Number: 00020096-01

Date Sample Received: 02/08/00

Client Project Number: MAC002S.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.75	0.020	mg/L	02/10/00
Copper, Leachable	BDL	0.010	mg/L	02/10/00
Lead, Leachable	BDL	0.050	mg/L	02/10/00
Metals Digestion for 6010B, Leachate	Completed			02/09/00
Zinc, Leachable	0.02	0.0050	mg/L	02/10/00
EP Toxicity Leaching Procedure	Completed			02/08/00

## MACDERMID, INC.

Location Collected: 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 003 Solder St. 1

EAS Project Number: 00020096

EAS Sample Number: 00020096-03

Date Sample Received: 02/08/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.025	0.0050	mg/L	02/10/00
Cadmium, Solid	15	0.10	mg/kg	02/10/00
Metals Digestion for 6010B, Leachate	Completed			02/09/00
Metals Digestion for 6010B, Solid	Completed			02/08/00
Nickel, Solid	72	0.40	mg/kg	02/10/00
EP Toxicity Leaching Procedure	Completed			02/08/00

HRP Associates, Inc. 167 New Britain Avenue Plainville, CT 06062 Phone: 860-793-6899 Fax: 860-793-6871	<h1 style="margin:0;">HRP</h1> <h2 style="margin:0;">CHAIN OF CUSTODY</h2>	Sheet <u>1</u> of <u>2</u> Job Number <u>MAC 0028.RC</u> Project Manager <u>RDM</u>
--	--	---

Place & Address of Collection <u>MAC DERMID INC</u>	Samplers Name (Signature) <u>[Signature]</u>
<u>526 HUNTINGTON AVENUE, WATERBURY, CT</u>	

Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
B001	SOLDER LEAD	GLASS	8 oz	COOL	2/4/00	11 AM	SOIL	SURFACE
B002						11:15		1'
B003						11:30		SURFACE
B004						11:45		1'
B005						12:00		SURFACE
B006						1 PM		1'
B007						1:15 PM		1'
CC008	FLAM STICK	GLASS				2:30 PM	CONCRETE	FROM 005 (1/13/00)
CC009	FLAM STICK	GLASS				2:45 PM	"	FROM 007 (1/13/00)

Relinquished By (Signature) <u>[Signature]</u>	Received By (Signature) <u>[Signature]</u>	Date <u>2/4/00</u>	Time <u>4:05</u>
Relinquished By (Signature)	Received By (Signature)	Date	Time
Name & Address of Laboratory: <u>EAS COMMERCIAL ST. MIDDLEBURY, CT</u>			

Parameters	Sample ID									
	B001	B002	B003	B004	B005	B006	B007	B008	B009	
CADMIUM, LEACHATE	X	X	X	X	X	X	X			
CADMIUM, SOLID	X	X	X	X	X	X	X			
CHROMIUM, LEACHATE	X	X	X	X	X	X	X			X
COPPER, SOLID	X	X	X	X	X	X	X			
LEAD, SOLID	X	X	X	X	X	X	X			
FIN, LEACHATE	X	X	X	X	X	X	X			
TRICHLOROETHYLENE - MASS ANAL.	X	X	X	X	X	X	X			
NICKEL, SOLID										
LEAD LEACHATE										
ZINC, LEACHATE										
TETRACHLOROETHYLENE - TCLP								X		
TRICHLOROETHYLENE - TCLP								X		
COPPER, LEACHATE	X	X	X	X	X	X	X			

Remarks: LEACHATE: EXTRACTION BY EP TOXICITY SOLID: MASS ANALYSIS	HRP CONTACT: <u>MIKE CHENOWETH</u>
Abbreviations: G - Glass    P - Plastic    A - Amber    T - TCLP Analysis    M - Mass Analysis    S - SPL Analysis	

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

CHAIN OF CUSTODY

Sheet 2 of 2

Job Number MAC W028.RC

Project Manager RDM

Place & Address of Collection MACDERMID, INC

Samplers Name (Signature)

526 HUNTINGDON AVE, WATERBURY, INC

Mike Chenweih

Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
B010	SOLDER STRIP	GLASS	802	COOL	2/9/00	10 AM	CONCRETE	2 <sup>ND</sup> SURF
011	↓	↓	↓	↓	↓	10 <sup>15</sup>	↓	↓
012	↓	↓	↓	↓	↓	10 <sup>45</sup>	↓	↓
W013	TRIP BLANK	P, L	11502	↓	↓	6 AM	WATER	BLANK
W014	EDUP BLANK	↓	11, 801	↓	↓	2 PM	"	"
B01DA	SOLDER STRIP					10 AM	SOIL	SURFACE
<del>B011A</del>	↓					10 <sup>15</sup>		
B011A	↓					10 <sup>45</sup>	"	"
B012A	↓						"	"

Relinquished By (Signature)

Mike Chenweih

Received By (Signature)

John M

Date 2/9/00

Time 1:05

Relinquished By (Signature)

Received By (Signature)

Date

Time

Name & Address of Laboratory: EAS COMMERCIAL ST MIDDLETOWN CT

Parameters	Sample ID									
	B010	B011	B012	W013	W014					
ADAMANT, LEACHATE	X	X	X	X	X					
ADAMANT, SOLID	X	X	X	X	X					
CHROMIUM, LEACHATE				X	X					
COPPER, SOLID				X	✓					
LEAD, SOLID				X	✓					
TIN, LEACHATE				X	X					
TRICHLOROETHYLENE - MASS				X	✓					
NICKEL, SOLID	X	X	X	X	X					
LEAD, LEACHATE				X	X					
ZINC, LEACHATE				X	X					
TETRACHLOROETHYLENE - TCLP										
TRICHLOROETHYLENE - TCLP										
COPPER, LEACHATE				X	X					
TETRACHLOROETHYLENE - MASS				X	X					

Remarks: LEACHATE: EXTRACTION BY EP TOXICITY

SOLID: MASS ANALYSIS

HRP CONTACT: MIKE CHENWEIH

Abbreviations: G - Glass P - Plastic A - Amber T - TCLP Analysis M - Mass Analysis S - SPLP Analysis

**APPENDIX G**

**April 26-28, 2000 Sampling Results**



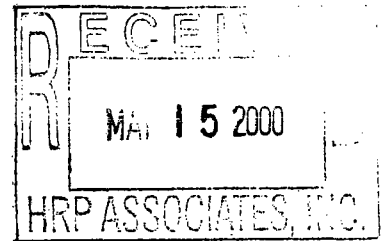
May 11, 2000

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702

Attention: Mr. Greg Strong

EAS Project Number: 00040396

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT



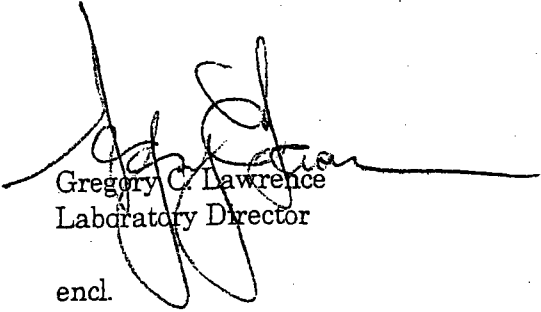
Copies of this report and the supporting computer stored data are retained in our files in the event they are required for future reference.

Any sample submitted to our laboratory will be retained for a maximum of thirty (30) days from receipt of the report.

All analytical data, unless otherwise specified, is reported on a wet weight (as received) basis.

Our laboratory is a multi-state Certified Public Health Laboratory, offering a full range of analytical services that include:

Water and Wastewater Analysis  
Hazardous Waste Analysis (RCRA)  
Full Priority Pollutant Analysis  
Drinking Water Analysis



Gregory C. Lawrence  
Laboratory Director

encl.

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/26/00

Sample Description: CC010/Flam. Storage

EAS Sample Number: 00040396-01

LIMS ID Number: AB04902

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
TCLP for Volatile Organic Compounds	Completed			05/01/00
Volatile Organic Compounds, Leachable Tetrachloroethylene	2.2	0.50	ug/L	05/10/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 001/NMP 1

EAS Sample Number: 00040396-02

LIMS ID Number: AB04903

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00



MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 01/13/00

Sample Description: 002/NMP 2

EAS Sample Number: 00040396-03

LIMS ID Number: AB04904

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/28/00

Sample Description: B007A/Solder Strip

EAS Sample Number: 00040396-04

LIMS ID Number: AB04905

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.028	0.02	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B013A/Solder Strip

EAS Sample Number: 00040396-05

LIMS ID Number: AB04906

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0074	0.005	mg/L	05/08/00
Cadmium, Solid	13	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	99	0.20	mg/kg	05/05/00
Lead, Solid	48	1.0	mg/kg	05/05/00
Tin, Leachable	BDL	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/01/00
Volatile Organic Compounds, Leachable Trichloroethylene	0.70	0.50	ug/L	05/10/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B013B/Solder Strip

EAS Sample Number: 00040396-06

LIMS ID Number: AB04907

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0061	0.005	mg/L	05/08/00
Cadmium, Solid	13	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	86	0.20	mg/kg	05/05/00
Lead, Solid	51	1.0	mg/kg	05/05/00
Tin, Leachable	0.027	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/01/00
Volatile Organic Compounds, Leachable				
Trichloroethylene	1.7	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B014A/Solder Strip

EAS Sample Number: 00040396-07

LIMS ID Number: AB04908

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0075	0.005	mg/L	05/08/00
Cadmium, Solid	8.2	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	72	0.20	mg/kg	05/05/00
Lead, Solid	40	1.0	mg/kg	05/05/00
Tin, Leachable	BDL	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/01/00
Volatile Organic Compounds, Leachable Trichloroethylene	5.2	0.50	ug/L	05/10/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B014B/Solder Strip

EAS Sample Number: 00040396-08

LIMS ID Number: AB04909

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0067	0.005	mg/L	05/08/00
Cadmium, Solid	21	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.020	mg/L	05/02/00
Copper, Solid	150	0.20	mg/kg	05/05/00
Lead, Solid	60	1.0	mg/kg	05/05/00
Tin, Leachable	BDL	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/02/00
Volatile Organic Compounds, Leachable				
Trichloroethylene	5.5	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B015A/Solder Strip

EAS Sample Number: 00040396-09

LIMS ID Number: AB04910

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.006	0.005	mg/L	05/08/00
Cadmium, Solid	15	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	560	0.20	mg/kg	05/05/00
Lead, Solid	61	1.0	mg/kg	05/05/00
Tin, Leachable	0.10	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/02/00
Volatile Organic Compounds, Leachable				
Trichloroethylene	18	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B015B/Solder Strip

EAS Sample Number: 00040396-10

LIMS ID Number: AB04911

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0067	0.005	mg/L	05/08/00
Cadmium, Solid	16	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	380	0.20	mg/kg	05/05/00
Lead, Solid	83	1.0	mg/kg	05/05/00
Tin, Leachable	BDL	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/02/00
Volatile Organic Compounds, Leachable				
Trichloroethylene	18	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00



MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B016A/Solder Strip

EAS Sample Number: 00040396-11

LIMS ID Number: AB04912

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0054	0.005	mg/L	05/08/00
Cadmium, Solid	18	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	210	0.20	mg/kg	05/05/00
Lead, Solid	220	1.0	mg/kg	05/05/00
Tin, Leachable	0.015	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/04/00
Volatile Organic Compounds, Leachable				
Trichloroethylene	39	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B016B/Solder Strip

EAS Sample Number: 00040396-12

LIMS ID Number: AB04913

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.015	0.005	mg/L	05/08/00
Cadmium, Solid	14	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	110	0.20	mg/kg	05/05/00
Lead, Solid	95	1.0	mg/kg	05/05/00
Tin, Leachable	0.018	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/04/00
Volatile Organic Compounds, Leachable				
Trichloroethylene	14	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/28/00

Sample Description: B017A/Solder Strip

EAS Sample Number: 00040396-13

LIMS ID Number: AB04914

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.005	mg/L	05/08/00
Cadmium, Solid	15	0.10	mg/kg	05/05/00
Chromium, Leachable	0.033	0.02	mg/L	05/08/00
Copper, Solid	210	0.20	mg/kg	05/05/00
Lead, Solid	310	1.0	mg/kg	05/05/00
Tin, Leachable	BDL	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/04/00
Volatile Organic Compounds, Leachable Trichloroethylene	15	0.50	ug/L	05/10/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/28/00

Sample Description: B017B/Solder Strip

EAS Sample Number: 00040396-14

LIMS ID Number: AB04915

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.016	0.005	mg/L	05/08/00
Cadmium, Solid	36	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	470	0.20	mg/kg	05/05/00
Lead, Solid	150	1.0	mg/kg	05/05/00
Tin, Leachable	0.032	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/04/00
Volatile Organic Compounds, Leachable				
Trichloroethylene	20	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/28/00

Sample Description: B018A/Solder Strip

EAS Sample Number: 00040396-15

LIMS ID Number: AB04916

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.005	mg/L	05/08/00
Cadmium, Solid	4.3	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	43	0.20	mg/kg	05/05/00
Lead, Solid	44	1.0	mg/kg	05/05/00
Tin, Leachable	BDL	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/08/00
Volatile Organic Compounds, Leachable Trichloroethylene	BDL	0.50	ug/L	05/10/00

---

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/28/00

Sample Description: B018A/Solder Strip

EAS Sample Number: 00040396-15

LIMS ID Number: AB04916

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.005	mg/L	05/08/00
Cadmium, Solid	4.3	0.10	mg/kg	05/05/00
Chromium, Leachable	BDL	0.02	mg/L	05/08/00
Copper, Solid	43	0.20	mg/kg	05/05/00
Lead, Solid	44	1.0	mg/kg	05/05/00
Tin, Leachable	BDL	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/08/00
Volatile Organic Compounds, Leachable Trichloroethylene	BDL	0.50	ug/L	05/10/00

---

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/28/00

Sample Description: B018B/Solder Strip

EAS Sample Number: 00040396-16

LIMS ID Number: AB04917

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0083	0.005	mg/L	05/08/00
Cadmium, Solid	3.6	0.10	mg/kg	05/05/00
Chromium, Leachable	0.024	0.02	mg/L	05/08/00
Copper, Solid	52	0.20	mg/kg	05/05/00
Lead, Solid	20	1.0	mg/kg	05/05/00
Tin, Leachable	0.032	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/08/00
Volatile Organic Compounds, Leachable Trichloroethylene	4.2	0.50	ug/L	05/10/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/28/00

Sample Description: B018B/Solder Strip

EAS Sample Number: 00040396-16

LIMS ID Number: AB04917

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0083	0.005	mg/L	05/08/00
Cadmium, Solid	3.6	0.10	mg/kg	05/05/00
Chromium, Leachable	0.024	0.02	mg/L	05/08/00
Copper, Solid	52	0.20	mg/kg	05/05/00
Lead, Solid	20	1.0	mg/kg	05/05/00
Tin, Leachable	0.032	0.01	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00
TCLP for Volatile Organic Compounds	Completed			05/08/00
Volatile Organic Compounds, Leachable Trichloroethylene	4.2	0.50	ug/L	05/10/00



MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B019A/Solder Strip

EAS Sample Number: 00040396-17

LIMS ID Number: AB04918

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.02	0.005	mg/L	05/08/00
EP Toxicity Leaching Procedure	Completed			05/03/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B020A/Solder Strip

EAS Sample Number: 00040396-18

LIMS ID Number: AB04919

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.04	0.005	mg/L	05/08/00
Cadmium, Solid	83	0.10	mg/kg	05/09/00
Nickel, Solid	360	0.40	mg/kg	05/05/00
EP Toxicity Leaching Procedure	Completed			05/03/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B021A/Solder Strip

EAS Sample Number: 00040396-19

LIMS ID Number: AB04920

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.37	0.005	mg/L	05/08/00
Cadmium, Solid	75	0.10	mg/kg	05/09/00
Nickel, Solid	450	0.40	mg/kg	05/05/00
EP Toxicity Leaching Procedure	Completed			05/03/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B022A/Solder Strip

EAS Sample Number: 00040396-20

LIMS ID Number: AB04921

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.029	0.005	mg/L	05/08/00
Cadmium, Solid	79	0.10	mg/kg	05/09/00
Nickel, Solid	320	0.40	mg/kg	05/05/00
EP Toxicity Leaching Procedure	Completed			05/03/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B024A/Solder Strip

EAS Sample Number: 00040396-21

LIMS ID Number: AB04922

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.012	0.005	mg/L	05/08/00
Cadmium, Solid	58	0.10	mg/kg	05/09/00
Nickel, Solid	110	0.40	mg/kg	05/05/00
EP Toxicity Leaching Procedure	Completed			05/03/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: W001/Trip Blank

EAS Sample Number: 00040396-22

LIMS ID Number: AB04923

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Water	BDL	0.005	mg/L	05/05/00
Copper, Water	BDL	0.01	mg/L	05/05/00
Lead, Water	BDL	0.05	mg/L	05/05/00
Nickel, Water	BDL	0.02	mg/L	05/05/00
Volatile Organic Compounds, Water				
Trichloroethylene	BDL	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: W002/Equipment Blank

EAS Sample Number: 00040396-23

LIMS ID Number: AB04924

Date Sample Received: 04/28/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Water	BDL	0.005	mg/L	05/05/00
Copper, Water	0.01	0.01	mg/L	05/05/00
Lead, Water	BDL	0.05	mg/L	05/05/00
Nickel, Water	BDL	0.02	mg/L	05/05/00
Volatile Organic Compounds, Water				
Trichloroethylene	BDL	0.50	ug/L	05/09/00
Tetrachloroethylene	BDL	0.50	ug/L	05/09/00

MACDERMID, INC.

Location Collected: MacDermid, Inc., 526 Huntingdon Ave., Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B023A/Solder Strip

EAS Sample Number: 00040396-24

LIMS ID Number: AB05036

Date Sample Received: 05/02/00

Client Project Number: MAC0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.011	0.005	mg/L	05/08/00
Cadmium, Solid	18	0.10	mg/kg	05/09/00
Nickel, Solid	130	0.40	mg/kg	05/05/00
EP Toxicity Leaching Procedure	Completed			05/03/00



EAS Project Number: 00040396

Location Collected: MacDermid, Inc., 526 Huntingdon Ave, Waterbury, CT

**EAS Certifications:**

Connecticut Certified Laboratory Number: PH 0558

Massachusetts Certified Laboratory Number: M-CT020

Maine Certified Laboratory Number: CT 020

New Jersey Certified Laboratory Number: 46647

New York Certified Laboratory Number: 10916

Rhode Island Certified Number: 139

**The enclosed analyses were conducted in accordance with:**

1. APHA Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> Edition, 1992
2. Clean Water Act, List of Approved Test Procedures, 40 CFR
3. EPA Test Methods for the Evaluation of solid Waste, SW-846, 3<sup>rd</sup> Edition, January 1998

### S - SPLP Analysis



HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

Sheet 3 of 3

CHAIN OF CUSTODY

Job Number MAC 0028.RC

Project Manager RDM

Place & Address of Collection

MAC DERMID, INC

Samplers Name (Signature)

526 HUNTINGDON AVE WATERBURY, CT

*Ant A. Chubb*

Sample ID	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
00010396-19								
B021A	SOLDER STRIP	G	802	COOL	4/27/00	AM	CONCRETE	
B022A	SOLDER STRIP	G	801	COOL	4/27/00	AM		
B023A	SOLDER STRIP	G	801	COOL	4/27/00	AM	SOIL	
B024A	SOLDER STRIP	G	801	COOL	4/27/00	AM		
W001	TRIP BLANK	P, G	11802	COOL	4/27/00	PM	WATER	BLANK
W002	EQUIP BLANK	P, G	11802	COOL	4/27/00	PM	WATER	BLANK

Relinquished By (Signature)

*Ant A. Chubb*

Received By (Signature)

*J. J. Hall*

Date 4/28/00

Time 1:30 PM

Relinquished By (Signature)

Received By (Signature)

*J. J. Hall*

Date 4/28/00

Time 17:56

Name & Address of Laboratory:

EAS LABORATORY

COMMERCIAL ST MIDDLEBURY, CT

Parameters

Sample ID

	B021A	B022A	B023A	B024A	W001	W002			
<del>CD, SOLID</del>	X	X	X	X	X	X			
CD, LEACHATE					X	X			
CU, SOLID					X	X			
Pb, SOLID					X	X			
SN, LEACHATE					X	X			
<del>TRICHLOROETHYLENE LEACHATE</del>									
TRICHLOROETHYLENE LEACHATE					X	X			
Ni, SOLID	X	X	X	X	X	X			
CD, LEACHATE	X	X	X	X	X	X			
TETRACHLOROETHYLENE LEACHATE					X	X			

Remarks: LEACHATE: EXTRACTION BY EP TOXICITY

SOLID: MASS ANALYSIS

B023A is Soil Sample 170 B023B

HRP CONTACT: MIKE CHENOWETH

Abbreviations:

G - Glass

P - Plastic

A - Amber

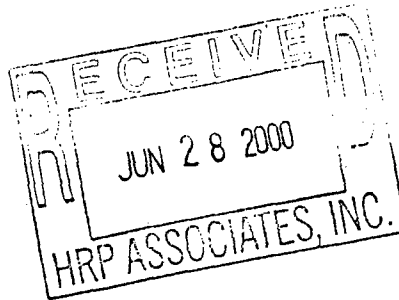
T - TCLP Analysis

M - Mass Analysis

S - SPLP Analysis

## APPENDIX H

### June 13, 2000 Sampling Results



June 21, 2000

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702

Attention: Mr. Greg Strong

EAS Project Number: 00060143  
Location Collected: 526 Huntingdon Ave, Waterbury, CT

Copies of this report and the supporting computer stored data are retained in our files in the event they are required for future reference.

Any sample submitted to our laboratory will be retained for a maximum of thirty (30) days from receipt of the report.

All analytical data, unless otherwise specified, is reported on a wet weight (as received) basis.

Our laboratory is a multi-state Certified Public Health Laboratory, offering a full range of analytical services that include:

Water and Wastewater Analysis  
Hazardous Waste Analysis (RCRA)  
Full Priority Pollutant Analysis  
Drinking Water Analysis

  
Gregory C. Lawrence  
Laboratory Director

encl

MACDERMID, INC.

Location Collected: 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B020B/Solder Strip

EAS Sample Number: 00060143-01

LIMS ID Number: AB06689

Date Sample Received: 06/13/00

Client Project Number: MAC 0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.011	0.005	mg/L	06/16/00
Cadmium, Solid	3.1	0.10	mg/kg	06/15/00
Nickel, Leachable	0.33	0.02	mg/L	06/16/00
Nickel, Solid	15	0.40	mg/kg	06/15/00
EP Toxicity Leaching Procedure	Completed			06/14/00

MACDERMID, INC.

Location Collected: 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B021B/Solder Strip

EAS Sample Number: 00060143-02

LIMS ID Number: AB06690

Date Sample Received: 06/13/00

Client Project Number: MAC 0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.0077	0.005	mg/L	06/16/00
Cadmium, Solid	5.2	0.10	mg/kg	06/15/00
Nickel, Leachable	0.89	0.02	mg/L	06/16/00
Nickel, Solid	25	0.40	mg/kg	06/15/00
EP Toxicity Leaching Procedure	Completed			06/14/00



MACDERMID, INC.

Location Collected: 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B022B/Solder Strip

EAS Sample Number: 00060143-03

LIMS ID Number: AB06691

Date Sample Received: 06/13/00

Client Project Number: MAC 0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	BDL	0.005	mg/L	06/16/00
Cadmium, Solid	5.1	0.10	mg/kg	06/15/00
Nickel, Leachable	0.099	0.02	mg/L	06/16/00
Nickel, Solid	19	0.40	mg/kg	06/15/00
EP Toxicity Leaching Procedure	Completed			06/14/00

MACDERMID, INC.

Location Collected: 526 Huntingdon Ave, Waterbury, CT

Date Sample Collected: 04/27/00

Sample Description: B024B/Solder Strip

EAS Sample Number: 00060143-04

LIMS ID Number: AB06692

Date Sample Received: 06/13/00

Client Project Number: MAC 0028.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cadmium, Leachable	0.021	0.005	mg/L	06/16/00
Cadmium, Solid	3.5	0.10	mg/kg	06/15/00
Nickel, Leachable	0.48	0.02	mg/L	06/16/00
Nickel, Solid	30	0.40	mg/kg	06/15/00
EP Toxicity Leaching Procedure	Completed			06/14/00

EAS Project Number: 00060143

Location Collected: 526 Huntingdon Ave, Waterbury, CT

### **EAS Certifications:**

Connecticut Certified Laboratory Number: PH 0558

Massachusetts Certified Laboratory Number: M-CT020

Maine Certified Laboratory Number: CT 020

New Jersey Certified Laboratory Number: 46647

New York Certified Laboratory Number: 10916

Rhode Island Certified Number: 139

### **The enclosed analyses were conducted in accordance with:**

1. APHA Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> Edition, 1992
2. Clean Water Act, List of Approved Test Procedures, 40 CFR
3. EPA Test Methods for the Evaluation of solid Waste, SW-846, 3<sup>rd</sup> Edition, January 1998

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

Sheet 3 of 3

Job Number MAC 0029.RC

Project Manager RDM

CHAIN OF CUSTODY

Place & Address of Collection

MACDERMID, INC

Samplers Name (Signature)

526 HUNTINGDON AVE WATERBURY, CT

Kind A Check

Sample ID	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
0029-19 B021A	SOLDER STRIP	G	802	COOL	4/27/00	AM	CONCRETE	
-20 B022A	SOLDER STRIP	G	806	COOL	4/27/00	AM		
-21 B023A	SOLDER STRIP	G	802	COOL	4/27/00	AM		
-24 B024A	SOLDER STRIP	G	802	COOL	4/27/00	AM		
-22 W001	TRIP BLANK	P, L	12 806	COOL	4/27/00	PM	WATER	Blank
-23 W002	ELUV BLANK	P, L	12 806	COOL	4/27/00	PM	WATER	Blank
0029-20 B020B	SOLDER STRIP	G	802	COOL	4/27/00	AM	SOIL	added per account
-22 B021B								Mike Chenoweth
-23 B022B								6/13/00
-24 B024B								

Relinquished By (Signature)

Kind A Check

Received By (Signature)

P. T. Hall

Date

4/28/00

Time

1:30 PM

Relinquished By (Signature)

Received By (Signature)

P. T. Hall

Date

4/28/00

Time

17:56

Name & Address of Laboratory:

EAS LABORATORY

COMMERCIAL ST MIDDLEBURY, CT

Parameters	Sample ID									
	B021A	B022A	B023A	B024A	W001	W002	B020B	B021B	B022B	B024B
CD, SOLID	X	X	X	X	X	X	X	X	X	X
Cr, LEACHATE					X	X				
Cu, SOLID					X	X				
Pb, SOLID					X	X				
Sn, LEACHATE					X	X				
<del>TECHNICAL</del>										
TECHNICAL LEACHATE					X	X				
Ni, SOLID	X	X	X	X	X	X	X	X	X	X
Cd, LEACHATE	X	X	X	X	X	X	X	X	X	X
TECHNICAL LEACHATE					X	X				
Ni, Leachate							X	X	X	

Remarks: LEACHATE: EXTRACTION BY EP TOXICITY

SOLID: MASS ANALYSIS

B023A is Soil Sample no B023B

5/9

HRP CONTACT: MIKE CHENOWETH

Abbreviations:

G - Glass

P - Plastic

A - Amber

T - TCLP Analysis

M - Mass Analysis

S - SPLP Analysis

## APPENDIX I

September 6, 1989 Fingerprint Specification for Spent Solder Stripper

September 6, 1989

MEMO TO: Cherrie Gillis

FROM: Ron Redline

cc: Alan Bares - Mary Jane Senechal - Marie Orsillo

SUBJECT: Fingerprint Sample - Spent Solder Stripper 17507/17595:  
Schedule C

COMPANY: Total Engineering Services

CUSTOMER NUMBER: 078573

<u>TEST</u>	<u>RESULT</u>	<u>SPECIFICATION</u>
1. Appearance	Acceptable	Blue, blue-green, light brown liquid @ 75°F
2. Specific Gravity	1.157	1.08 minimum
3. pH	5.1	3.5 - 6.0
4. Fluoride	233.7 g/l	110 g/l minimum
5. Chloride	910 ppm	500 ppm maximum
6. Copper	0.50 g/l	5 g/l maximum
7. Lead	38 ppm	50 ppm maximum
8. Tin	46 g/l	22.5 g/l minimum
9. Fluoborates	-----	5 ppm maximum
10. Iron	1.0 ppm	100 ppm maximum
11. Nitrates	-----	5 ppm maximum
12. Nickel	18 ppm	5 ppm maximum
13. Others as listed on generator certification		

**APPENDIX J**

**August 10, 2000 Sampling Results**



September 11, 2000



Client: MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702

Attention: Mr. Greg Strong

EAS Project Number(s): 00080149  
Location Collected: Huntingdon Avenue, Waterbury, CT

\* Limited sample volume for CC028/NMP. Total sulfide unable to be analyzed.

Copies of this report and the supporting computer stored data are retained in our files in the event they are required for future reference.

Any sample submitted to our laboratory will be retained for a maximum of thirty (30) days from receipt of the sample.

All analytical data, unless otherwise specified, is reported on a wet weight (as received) basis.

Our laboratory is a multi-state Certified Public Health Laboratory, offering a full range of analytical services which include:

Drinking Water Analysis  
Water and Wastewater Analysis  
Hazardous Waste Analysis (RCRA)  
Full Priority Pollutant Analysis  
Field Sampling

  
Gregory C. Lawrence  
Laboratory Director

encl.



MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC016/Solder Strip

EAS Sample Number: 00080149-01

LIMS ID Number: AB09174

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	28	10	mg/kg	09/05/00
Barium, Leachable	0.21	0.005	mg/L	08/17/00
Barium, Solid	22	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	3.3	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	6.4	0.40	mg/kg	08/14/00
Copper, Leachable	0.078	0.01	mg/L	08/17/00
Copper, Solid	31	0.20	mg/kg	08/14/00
Lead, Solid	1.9	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.051	0.02	mg/L	08/17/00
Nickel, Solid	5.3	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	110	0.20	mg/kg	08/14/00
Zinc, Leachable	0.051	0.005	mg/L	08/17/00
Zinc, Solid	18	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	660	330	ug/kg	08/24/00
Benzyl Alcohol	BDL	330	ug/kg	08/24/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00
Chlorobenzene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC016/Solder Strip

EAS Sample Number: 00080149-01

LIMS ID Number: AB09174

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	40	10	ug/kg	08/21/00
O-Xylene	16	10	ug/kg	08/21/00
1,4-Dioxane	BDL	100	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC017/Solder Strip

EAS Sample Number: 00080149-02

LIMS ID Number: AB09175

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	12	10	mg/kg	09/05/00
Barium, Leachable	0.19	0.005	mg/L	08/17/00
Barium, Solid	24	0.10	mg/kg	08/14/00
Cadmium, Leachable	0.011	0.005	mg/L	08/17/00
Cadmium, Solid	3.4	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	9.6	0.40	mg/kg	08/14/00
Copper, Leachable	0.34	0.01	mg/L	08/17/00
Copper, Solid	86	0.20	mg/kg	08/14/00
Lead, Solid	27	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.07	0.02	mg/L	08/17/00
Nickel, Solid	8.7	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	34	0.20	mg/kg	08/14/00
Zinc, Leachable	0.52	0.005	mg/L	08/17/00
Zinc, Solid	51	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	1600	330	ug/kg	08/24/00
Benzyl Alcohol	BDL	330	ug/kg	08/24/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	22	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00
Chlorobenzene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC017/Solder Strip

EAS Sample Number: 00080149-02

LIMS ID Number: AB09175

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Ethylbenzene	74	10	ug/kg	08/21/00
m/p-Xylene	270	10	ug/kg	08/21/00
O-Xylene	75	10	ug/kg	08/21/00
1,4-Dioxane	BDL	100	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC018/Solder Strip

EAS Sample Number: 00080149-03

LIMS ID Number: AB09176

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Barium, Leachable	0.078	0.005	mg/L	08/17/00
Barium, Solid	52	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	4.5	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	19	0.40	mg/kg	08/14/00
Copper, Leachable	14	0.01	mg/L	08/17/00
Copper, Solid	980	0.20	mg/kg	08/14/00
Lead, Solid	73	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.023	0.005	mg/L	08/18/00
Nickel, Leachable	0.051	0.02	mg/L	08/17/00
Nickel, Solid	11	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	640	0.20	mg/kg	08/14/00
Zinc, Leachable	0.91	0.005	mg/L	08/17/00
Zinc, Solid	110	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/24/00
Benzyl Alcohol	BDL	330	ug/kg	08/24/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00
Chlorobenzene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC018/Solder Strip

EAS Sample Number: 00080149-03

LIMS ID Number: AB09176

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Ethylbenzene	190	10	ug/kg	08/21/00
m/p-Xylene	1000	10	ug/kg	08/21/00
O-Xylene	390	10	ug/kg	08/21/00
1,4-Dioxane	190	100	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

## MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC019/Solder Strip

EAS Sample Number: 00080149-C4

LIMS ID Number: AB09177

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Barium, Leachable	0.22	0.005	mg/L	08/17/00
Barium, Solid	27	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	3.2	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	6.7	0.40	mg/kg	08/14/00
Copper, Leachable	0.092	0.01	mg/L	08/17/00
Copper, Solid	100	0.20	mg/kg	08/14/00
Lead, Solid	14	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.044	0.02	mg/L	08/17/00
Nickel, Solid	8.3	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	270	0.20	mg/kg	08/14/00
Zinc, Leachable	1.3	0.005	mg/L	08/17/00
Zinc, Solid	200	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	1100	330	ug/kg	08/24/00
Benzyl Alcohol	BDL	330	ug/kg	08/24/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
4-Methyl-2-Pentanone	12	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00
Chlorobenzene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC019/Solder Strip

EAS Sample Number: 00080149-04

LIMS ID Number: AB09177

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
1,4-Dioxane	550	100	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00



MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC020/Solder Strip

EAS Sample Number: 00080149-05

LIMS ID Number: AB09178

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Barium, Leachable	0.19	0.005	mg/L	08/17/00
Barium, Solid	29	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	3.3	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	14	0.40	mg/kg	08/14/00
Copper, Leachable	0.14	0.01	mg/L	08/17/00
Copper, Solid	180	0.20	mg/kg	08/14/00
Lead, Solid	51	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.049	0.02	mg/L	08/17/00
Nickel, Solid	8.4	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	84	0.20	mg/kg	08/14/00
Zinc, Leachable	0.79	0.005	mg/L	08/17/00
Zinc, Solid	400	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	1200	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
4-Methyl-2-Pentanone	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00
Chlorobenzene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Avenue, Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC020/Solder Strip

EAS Sample Number: 00080149-05

LIMS ID Number: AB09178

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Ethylbenzene	180	10	ug/kg	08/21/00
m/p-Xylene	650	10	ug/kg	08/21/00
O-Xylene	170	10	ug/kg	08/21/00
1,4-Dioxane	380	100	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC011/NMP

EAS Sample Number: 00080149-06

LIMS ID Number: AB09179

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	20	10	mg/kg	09/05/00
Arsenic, Solid	BDL	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.33	0.005	mg/L	08/17/00
Barium, Solid	58	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	3.5	0.10	mg/kg	08/14/00
Chromium, Leachable	0.11	0.02	mg/L	08/17/00
Chromium, Solid	52	0.40	mg/kg	08/14/00
Copper, Leachable	0.67	0.01	mg/L	08/17/00
Copper, Solid	170	0.20	mg/kg	08/14/00
Lead, Solid	62	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.049	0.005	mg/L	08/18/00
Nickel, Leachable	0.55	0.02	mg/L	08/17/00
Nickel, Solid	49	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	190	0.20	mg/kg	08/14/00
Zinc, Leachable	5.4	0.005	mg/L	08/17/00
Zinc, Solid	470	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	1400	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC011/NMP

EAS Sample Number: 00080149-06

LIMS ID Number: AB09179

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC012/NMP

EAS Sample Number: 00080149-07

LIMS ID Number: AB09180

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Arsenic, Solid	2.3	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.31	0.005	mg/L	08/17/00
Barium, Solid	45	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	1.7	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	5.6	0.40	mg/kg	08/14/00
Copper, Leachable	0.058	0.01	mg/L	08/17/00
Copper, Solid	9.3	0.20	mg/kg	08/14/00
Lead, Solid	2.3	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.038	0.02	mg/L	08/17/00
Nickel, Solid	5.2	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	4.8	0.20	mg/kg	08/14/00
Zinc, Leachable	0.069	0.005	mg/L	08/17/00
Zinc, Solid	12	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/28/00
Benzyl Alcohol	BDL	330	ug/kg	08/28/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC012/NMP

EAS Sample Number: 00080149-07

LIMS ID Number: AB09180

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC013/NMP

EAS Sample Number: 00080149-08

LIMS ID Number: AB09181

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Arsenic, Solid	3.0	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.19	0.005	mg/L	08/17/00
Barium, Solid	26	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	1.8	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	8.6	0.40	mg/kg	08/14/00
Copper, Leachable	BDL	0.01	mg/L	08/17/00
Copper, Solid	11	0.20	mg/kg	08/14/00
Lead, Solid	4.4	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.023	0.02	mg/L	08/17/00
Nickel, Solid	7.0	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	2.1	0.20	mg/kg	08/14/00
Zinc, Leachable	BDL	0.005	mg/L	08/17/00
Zinc, Solid	14	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/28/00
Benzyl Alcohol	BDL	330	ug/kg	08/28/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC013/NMP

EAS Sample Number: 00080149-08

LIMS ID Number: AB09181

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00



MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC014/NMP

EAS Sample Number: 00080149-09

LIMS ID Number: AB09182

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Arsenic, Solid	BDL	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.21	0.005	mg/L	08/17/00
Barium, Solid	50	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	2.8	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	49	0.40	mg/kg	08/14/00
Copper, Leachable	0.30	0.01	mg/L	08/17/00
Copper, Solid	130	0.20	mg/kg	08/14/00
Lead, Solid	45	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.53	0.02	mg/L	08/17/00
Nickel, Solid	50	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	42	0.20	mg/kg	08/14/00
Zinc, Leachable	5.0	0.005	mg/L	08/17/00
Zinc, Solid	510	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/24/00
Benzyl Alcohol	BDL	330	ug/kg	08/24/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC014/NMP

EAS Sample Number: 00080149-09

LIMS ID Number: AB09182

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC015/NMP

EAS Sample Number: 00080149-10

LIMS ID Number: AB09183

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	16	10	mg/kg	09/05/00
Arsenic, Solid	2.1	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.35	0.005	mg/L	08/17/00
Barium, Solid	60	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	2.6	0.10	mg/kg	08/14/00
Chromium, Leachable	BDL	0.02	mg/L	08/17/00
Chromium, Solid	16	0.40	mg/kg	08/14/00
Copper, Leachable	0.034	0.01	mg/L	08/17/00
Copper, Solid	56	0.20	mg/kg	08/14/00
Lead, Solid	42	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.055	0.02	mg/L	08/17/00
Nickel, Solid	14	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	300	0.20	mg/kg	08/14/00
Zinc, Leachable	0.094	0.005	mg/L	08/17/00
Zinc, Solid	40	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC015/NMP

EAS Sample Number: 00080149-10

LIMS ID Number: AB09183

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC021/NMP

EAS Sample Number: 00080149-11

LIMS ID Number: AB09184

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	60	10	mg/kg	09/05/00
Arsenic, Solid	BDL	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.39	0.005	mg/L	08/17/00
Barium, Solid	53	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	2.5	0.10	mg/kg	08/14/00
Chromium, Leachable	0.031	0.02	mg/L	08/17/00
Chromium, Solid	51	0.40	mg/kg	08/14/00
Copper, Leachable	0.62	0.01	mg/L	08/17/00
Copper, Solid	160	0.20	mg/kg	08/14/00
Lead, Solid	56	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.018	0.005	mg/L	08/18/00
Nickel, Leachable	0.72	0.02	mg/L	08/17/00
Nickel, Solid	53	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	120	0.20	mg/kg	08/14/00
Zinc, Leachable	7.1	0.005	mg/L	08/17/00
Zinc, Solid	500	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/14/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/28/00
Benzyl Alcohol	1900	330	ug/kg	08/28/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC021/NMP

EAS Sample Number: 00080149-11

LIMS ID Number: AB09184

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC022/NMP

EAS Sample Number: 00080149-12

LIMS ID Number: AB09185

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	36	10	mg/kg	09/05/00
Arsenic, Solid	7.6	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.27	0.005	mg/L	08/17/00
Barium, Solid	46	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	2.5	0.10	mg/kg	08/14/00
Chromium, Leachable	0.87	0.02	mg/L	08/17/00
Chromium, Solid	50	0.40	mg/kg	08/14/00
Copper, Leachable	0.42	0.01	mg/L	08/17/00
Copper, Solid	170	0.20	mg/kg	08/14/00
Lead, Solid	46	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.008	0.005	mg/L	08/18/00
Nickel, Leachable	0.67	0.02	mg/L	08/17/00
Nickel, Solid	52	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	160	0.20	mg/kg	08/14/00
Zinc, Leachable	6.4	0.005	mg/L	08/17/00
Zinc, Solid	500	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/16/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	690	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC022/NMP

EAS Sample Number: 00080149-12

LIMS ID Number: AB09185

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

---

BDL = Below Detection Limit



MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC023/NMP

EAS Sample Number: 00080149-13

LIMS ID Number: AB09186

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Arsenic, Solid	BDL	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.37	0.005	mg/L	08/17/00
Barium, Solid	52	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	2.7	0.10	mg/kg	08/14/00
Chromium, Leachable	0.11	0.02	mg/L	08/17/00
Chromium, Solid	54	0.40	mg/kg	08/14/00
Copper, Leachable	0.45	0.01	mg/L	08/17/00
Copper, Solid	180	0.20	mg/kg	08/14/00
Lead, Solid	57	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.0058	0.005	mg/L	08/18/00
Nickel, Leachable	0.87	0.02	mg/L	08/17/00
Nickel, Solid	54	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	180	0.20	mg/kg	08/14/00
Zinc, Leachable	7.6	0.005	mg/L	08/17/00
Zinc, Solid	540	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/16/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	1100	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2 -Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC023/NMP

EAS Sample Number: 00080149-13

LIMS ID Number: AB09186

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC024/NMP

EAS Sample Number: 00080149-14

LIMS ID Number: AB09187

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	BDL	10	mg/kg	09/05/00
Arsenic, Solid	BDL	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.17	0.005	mg/L	08/17/00
Barium, Solid	53	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	2.9	0.10	mg/kg	08/14/00
Chromium, Leachable	0.40	0.02	mg/L	08/17/00
Chromium, Solid	49	0.40	mg/kg	08/14/00
Copper, Leachable	BDL	0.01	mg/L	08/17/00
Copper, Solid	120	0.20	mg/kg	08/14/00
Lead, Solid	42	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	BDL	0.02	mg/L	08/17/00
Nickel, Solid	58	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	37	0.20	mg/kg	08/14/00
Zinc, Leachable	BDL	0.005	mg/L	08/17/00
Zinc, Solid	500	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/16/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	2400	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC024/NMP

EAS Sample Number: 00080149-14

LIMS ID Number: AB09187

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC025/NMP

EAS Sample Number: 00080149-15

LIMS ID Number: AB09188

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	40	10	mg/kg	09/05/00
Arsenic, Solid	6.1	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.29	0.005	mg/L	08/17/00
Barium, Solid	60	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	3.3	0.10	mg/kg	08/14/00
Chromium, Leachable	0.046	0.02	mg/L	08/17/00
Chromium, Solid	57	0.40	mg/kg	08/14/00
Copper, Leachable	0.72	0.01	mg/L	08/17/00
Copper, Solid	180	0.20	mg/kg	08/14/00
Lead, Solid	72	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.019	0.005	mg/L	08/18/00
Nickel, Leachable	0.56	0.02	mg/L	08/17/00
Nickel, Solid	57	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	1100	0.20	mg/kg	08/14/00
Zinc, Leachable	6.8	0.005	mg/L	08/17/00
Zinc, Solid	670	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/17/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC025/NMP

EAS Sample Number: 00080149-15

LIMS ID Number: AB09188

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC026/NMP

EAS Sample Number: 00080149-16

LIMS ID Number: AB09189

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	10	10	mg/kg	09/05/00
Arsenic, Solid	5.1	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.21	0.005	mg/L	08/17/00
Barium, Solid	110	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	3.9	0.10	mg/kg	08/14/00
Chromium, Leachable	0.36	0.02	mg/L	08/17/00
Chromium, Solid	53	0.40	mg/kg	08/14/00
Copper, Leachable	0.069	0.01	mg/L	08/17/00
Copper, Solid	170	0.20	mg/kg	08/14/00
Lead, Solid	49	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	BDL	0.005	mg/L	08/18/00
Nickel, Leachable	0.63	0.02	mg/L	08/17/00
Nickel, Solid	51	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	270	0.20	mg/kg	08/14/00
Zinc, Leachable	1.9	0.005	mg/L	08/17/00
Zinc, Solid	590	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/17/00
EP Toxicity Leaching Procedure Method 8270, Solid	Completed			08/14/00
Bis (2-ethylhexyl) phthalate	BDL	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC026/NMP

EAS Sample Number: 00080149-16

LIMS ID Number: AB09189

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00



MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC027/NMP

EAS Sample Number: 00080149-17

LIMS ID Number: AB09190

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Sulfide-Total, Solid	320	10	mg/kg	09/05/00
Arsenic, Solid	BDL	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.33	0.005	mg/L	08/17/00
Barium, Solid	50	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/17/00
Cadmium, Solid	2.4	0.10	mg/kg	08/14/00
Chromium, Leachable	0.057	0.02	mg/L	08/17/00
Chromium, Solid	55	0.40	mg/kg	08/14/00
Copper, Leachable	0.061	0.01	mg/L	08/17/00
Copper, Solid	160	0.20	mg/kg	08/14/00
Lead, Solid	51	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.016	0.005	mg/L	08/18/00
Nickel, Leachable	0.61	0.02	mg/L	08/17/00
Nickel, Solid	58	0.40	mg/kg	08/14/00
Sulfide, Leachable	3.6	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/17/00
Tin, Solid	90	0.20	mg/kg	08/14/00
Zinc, Leachable	5.0	0.005	mg/L	08/17/00
Zinc, Solid	620	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/17/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	600	330	ug/kg	08/25/00
Benzyl Alcohol	BDL	330	ug/kg	08/25/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC027/NMP

EAS Sample Number: 00080149-17

LIMS ID Number: AB09190

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chlorobenzene	BDL	10	ug/kg	08/21/00
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC028/NMP

EAS Sample Number: 00080149-18

LIMS ID Number: AB09191

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Leachable	BDL	0.15	mg/L	08/18/00
Cyanide, Solid	BDL	5.0	mg/kg	08/18/00
Arsenic, Solid	5.2	2.0	mg/kg	08/14/00
Arsenic-Low Level, Leachable	BDL	0.005	mg/L	08/21/00
Barium, Leachable	0.013	0.005	mg/L	08/24/00
Barium, Solid	120	0.10	mg/kg	08/14/00
Cadmium, Leachable	BDL	0.005	mg/L	08/24/00
Cadmium, Solid	3.7	0.10	mg/kg	08/14/00
Chromium, Leachable	0.062	0.02	mg/L	08/24/00
Chromium, Solid	48	0.40	mg/kg	08/14/00
Copper, Leachable	0.36	0.01	mg/L	08/24/00
Copper, Solid	130	0.20	mg/kg	08/14/00
Lead, Solid	40	1.0	mg/kg	08/14/00
Lead-Low Level, Leachable	0.012	0.005	mg/L	08/18/00
Nickel, Leachable	0.12	0.02	mg/L	08/24/00
Nickel, Solid	42	0.40	mg/kg	08/14/00
Sulfide, Leachable	BDL	1.0	mg/L	09/05/00
Tin, Leachable	BDL	0.01	mg/L	08/24/00
Tin, Solid	1000	0.20	mg/kg	08/14/00
Zinc, Leachable	3.8	0.005	mg/L	08/24/00
Zinc, Solid	510	0.10	mg/kg	08/14/00
BNA Extraction, Solid	Completed			08/17/00
EP Toxicity Leaching Procedure	Completed			08/14/00
Method 8270, Solid				
Bis (2-ethylhexyl) phthalate	64000	330	ug/kg	08/28/00
Benzyl Alcohol	BDL	330	ug/kg	08/28/00
Volatile Organic Compounds, Solid				
Trichlorofluoromethane	BDL	10	ug/kg	08/21/00
Acetone	BDL	25	ug/kg	08/21/00
Methylene Chloride	BDL	10	ug/kg	08/21/00
2-Butanone	BDL	10	ug/kg	08/21/00
1,1,1-Trichloroethane	BDL	10	ug/kg	08/21/00
Trichloroethene	BDL	10	ug/kg	08/21/00
Toluene	BDL	10	ug/kg	08/21/00
Tetrachloroethylene	BDL	10	ug/kg	08/21/00
Chlorobenzene	BDL	10	ug/kg	08/21/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: CC028/NMP

EAS Sample Number: 00080149-18

LIMS ID Number: AB09191

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Ethylbenzene	BDL	10	ug/kg	08/21/00
m/p-Xylene	BDL	10	ug/kg	08/21/00
O-Xylene	BDL	10	ug/kg	08/21/00
Isobutanol	BDL	50	ug/kg	08/21/00

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: W001/TRIP

EAS Sample Number: 00080149-19

LIMS ID Number: AB09192

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Water	BDL	0.01	mg/L	08/18/00
Sulfide, Water	BDL	10	mg/L	08/17/00
Arsenic-Low Level, Water	BDL	0.005	mg/L	08/21/00
Barium, Water	BDL	0.005	mg/L	08/16/00
Cadmium, Water	BDL	0.005	mg/L	08/16/00
Chromium, Water	BDL	0.02	mg/L	08/16/00
Copper, Water	BDL	0.01	mg/L	08/16/00
Lead-Low Level, Water	BDL	0.005	mg/L	08/18/00
Nickel, Water	BDL	0.02	mg/L	08/16/00
Tin, Water	BDL	0.01	mg/L	08/16/00
Zinc, Water	BDL	0.005	mg/L	08/16/00
BNA Extraction, Water	Completed			08/14/00
Method 8270, Water				
Di-n-butylphthalate	BDL	10	ug/L	08/22/00
Butylbenzylphthalate	BDL	10	ug/L	08/22/00
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	08/22/00
Di-n-octylphthalate	BDL	10	ug/L	08/22/00
Volatile Organic Compounds, Water				
Trichlorofluoromethane	BDL	0.50	ug/L	08/22/00
Acetone	BDL	5.0	ug/L	08/22/00
Methylene Chloride	BDL	0.50	ug/L	08/22/00
2-Butanone	BDL	0.50	ug/L	08/22/00
1,1,1-Trichloroethane	BDL	0.50	ug/L	08/22/00
Trichloroethene	BDL	0.50	ug/L	08/22/00
4-Methyl-2-Pentanone	BDL	0.50	ug/L	08/22/00
Toluene	BDL	0.50	ug/L	08/22/00
Tetrachloroethylene	BDL	0.50	ug/L	08/22/00
Chlorobenzene	BDL	0.50	ug/L	08/22/00
Ethylbenzene	BDL	0.50	ug/L	08/22/00
m/p-Xylene	BDL	0.50	ug/L	08/22/00
o-Xylene	BDL	0.50	ug/L	08/22/00
Isobutanol	BDL	50	ug/L	08/22/00
1,4-Dioxane	BDL	100	ug/L	08/22/00

BDL = Below Detection Limit

MACDERMID, INC.

Location Collected: Huntingdon Ave., Waterbury, CT

Date Sample Collected: 08/10/00

Sample Description: W002/EQUIP

EAS Sample Number: 00080149-20

LIMS ID Number: AB09193

Date Sample Received: 08/10/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Cyanide, Water	BDL	0.01	mg/L	08/18/00
Sulfide, Water	BDL	10	mg/L	08/17/00
Arsenic-Low Level, Water	BDL	0.005	mg/L	08/21/00
Barium, Water	BDL	0.005	mg/L	08/16/00
Cadmium, Water	BDL	0.005	mg/L	08/16/00
Chromium, Water	BDL	0.02	mg/L	08/16/00
Copper, Water	BDL	0.01	mg/L	08/16/00
Lead-Low Level, Water	BDL	0.005	mg/L	08/18/00
Nickel, Water	BDL	0.02	mg/L	08/16/00
Tin, Water	BDL	0.01	mg/L	08/16/00
Zinc, Water	BDL	0.005	mg/L	08/16/00
BNA Extraction, Water	Completed			08/14/00
Method 8270, Water				
Di-n-butylphthalate	BDL	10	ug/L	08/23/00
Butylbenzylphthalate	BDL	10	ug/L	08/23/00
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	08/23/00
Di-n-octylphthalate	BDL	10	ug/L	08/23/00
Volatile Organic Compounds, Water				
Trichlorofluoromethane	BDL	0.50	ug/L	08/22/00
Acetone	BDL	5.0	ug/L	08/22/00
Methylene Chloride	BDL	0.50	ug/L	08/22/00
2-Butanone	BDL	0.50	ug/L	08/22/00
1,1,1-Trichloroethane	BDL	0.50	ug/L	08/22/00
Trichloroethene	BDL	0.50	ug/L	08/22/00
4-Methyl-2-Pentanone	BDL	0.50	ug/L	08/22/00
Toluene	BDL	0.50	ug/L	08/22/00
Tetrachloroethylene	BDL	0.50	ug/L	08/22/00
Chlorobenzene	BDL	0.50	ug/L	08/22/00
Ethylbenzene	BDL	0.50	ug/L	08/22/00
m/p-Xylene	BDL	0.50	ug/L	08/22/00
o-Xylene	BDL	0.50	ug/L	08/22/00
Isobutanol	BDL	50	ug/L	08/22/00
1,4-Dioxane	BDL	100	ug/L	08/22/00

BDL = Below Detection Limit

EAS Project Number: 00080149

Location Collected: Huntingdon Avenue, Waterbury, CT

### **EAS Certifications:**

Connecticut Certified Laboratory Number: PH 0558

Massachusetts Certified Laboratory Number: M-CT020

Maine Certified Laboratory Number: CT 020

New Jersey Certified Laboratory Number: 46647

New York Certified Laboratory Number: 10916

Rhode Island Certified Number: 139

### **The enclosed analyses were conducted in accordance with:**

1. APHA Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> Edition, 1992
2. Clean Water Act, List of Approved Test Procedures, 40 CFR
3. EPA Test Methods for the Evaluation of solid Waste, SW-846, 3<sup>rd</sup> Edition, January 1998

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

CHAIN OF CUSTODY

Sheet 1 of 4

Job Number MAC 0030.RC

Project Manager RDM

Place & Address of Collection

MAC DERMID, Inc

Samplers Name (Signature)

HUNTINGDON AVE WATERBURY, CT

[Signature]

Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
CC011	NMP	G	802	COOL	8/10/01	11:00 AM	CONCRETE	CHIP SAMPLES
CC012								
CC013								
CC014								
CC015								
CC016	SOLDER STRIP							
CC017								
CC018								
CC019								
CC020								

Relinquished By (Signature)

[Signature]

Received By (Signature)

[Signature]

Date

8-10-01

Time

3:30 PM

Relinquished By (Signature)

Received By (Signature)

Date

Time

Name & Address of Laboratory:

FAS LAB

MIDDLEBURY, CT

Parameters	Sample ID									
	CC011	CC012	CC013	CC014	CC015	CC016	CC017	CC018	CC019	CC020
Barium - M/L	X	X	X	X	X	X	X	X	X	X
Cadmium - M/L	X	X	X	X	X	X	X	X	X	X
Chromium - M/L	X	X	X	X	X	X	X	X	X	X
Cu - M/L	X	X	X	X	X	X	X	X	X	X
Pb - M/L	X	X	X	X	X	X	X	X	X	X
Ni - M/L	X	X	X	X	X	X	X	X	X	X
Sn - M/L	X	X	X	X	X	X	X	X	X	X
Zn - M/L	X	X	X	X	X	X	X	X	X	X
Cyanide - M/L	X	X	X	X	X	X	X	X	X	X
Sulfide - M/L	X	X	X	X	X	X	X	X	X	X
Acetone - M	X	X	X	X	X	X	X	X	X	X
2-Butanone - M	X	X	X	X	X	X	X	X	X	X
Chlorobenzene - M	X	X	X	X	X	X	X	X	X	X
1,4-Dioxane - M						X	X	X	X	X
Ethyl Benzene - M	X	X	X	X	X	X	X	X	X	X
Remarks:										
Benzene - M	X	X	X	X	X					

L: LEACHATE BY EP TOXICITY

M: MASS ANALYSIS

Abbreviations:

G - Glass

P - Plastic

A - Amber

T - TCLP Analysis

M - Mass Analysis

S - SPLP Analysis



HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

CHAIN OF CUSTODY

Sheet 2 of 4

Job Number MAC 0030.PC

Project Manager RDM

Place & Address of Collection

MACDERMID, INC

Samplers Name (Signature)

[Signature]

HUNTINGDON AVE WATERBURY, CT

Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
CC011	NMP	G	802	COOL	8/10/00	11:00	CONCRETE	CHIP SAMPLES
CC012								
CC013								
CC014								
CC015						1:00 PM		
CC016	SOLDER 'STICK'							
CC017								
CC018								
CC019						1:00 PM		
CC020								

Relinquished By (Signature)

[Signature]

Received By (Signature)

[Signature]

Date 8-10-00

Time 3:00 PM

Relinquished By (Signature)

Received By (Signature)

Date

Time

Name & Address of Laboratory:

EAS LABS MIDDLEBURY, CT

Parameters	CC011	CC012	CC013	CC014	Sample ID	CC015	CC016	CC017	CC018	CC019	CC020
ISOBUTANOL - M	X	Y	Y	X	X	X	X	X	X	X	X
METHYLENE CHLORIDE - M	X	Y	Y	X	X	X	X	X	X	X	X
4-METHYL-2-PENTANONE - M						X	X	X	X	X	X
TETRACHLOROETHYLENE - M	X	X	X	X	X	X	X	X	X	X	X
TOLUENE - M	X	X	X	X	X	X	X	X	X	X	X
1,1,1-TRICHLOROETHANE - M	X	X	X	X	X	Y	X	X	X	X	X
TRICHLOROETHYLENE - M	X	Y	X	X	X	Y	X	X	X	X	X
TRICHLOROETHYLENE - M	X	Y	X	X	X	Y	X	X	X	X	X
XYLENE - M	X	X	X	X	X	X	X	X	X	X	X
BIS(2-ETHYLHEXYL)PHTHALATE - M	X	X	X	X	X	X	X	X	X	X	X
BUTYL BUTYL PHTHALATE - M						Y	X	X	X	X	X
DI-N-BUTYL PHTHALATE - M						X	X	X	X	X	X
DI-N-ONYL PHTHALATE - M						X	X	X	X	X	X
ARSENIC - M/L	X	X	X	X	X						

Remarks:

L=LEACHATE BY EP TOXICITY M=MASS ANALYSIS

Abbreviations: G - Glass P - Plastic A - Amber T - TCLP Analysis M - Mass Analysis S - SPLP Analysis

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

CHAIN OF CUSTODY

Sheet 3 of 4

Job Number MAC 0030.RC

Project Manager EDM

Place & Address of Collection

MAC DERMID, INC

Samplers Name (Signature)

*Phil A. Chung*

HUNTINGDON AVE WATERBURY, CT

Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
CC021	NMP	G	802	COOL	8/10/00	2:15pm	CONCRETE	CHIP SAMPLES
CC022								
CC023								
CC024						pm		
CC025								
CC026								
CC027						pm		
CC028								
WOOD1	TRIP	G.P	200	HCL		5pm	WATER	BLANK
WOOD2	EDVIP	"	"	"		7pm	WATER	BLANK

Relinquished By (Signature)

*Phil A. Chung*

Received By (Signature)

*[Signature]*

Date 8-10-00

Time 3:00

Relinquished By (Signature)

Received By (Signature)

Date

Time

Name & Address of Laboratory:

EAS LABS

MIDDLEBURY, CT

Parameters	Sample ID									
	CC021	CC022	CC023	CC024	CC025	CC026	CC027	CC028	WOOD1	WOOD2
CD - m/L	X	X	X	X	X	X	X	X	X	X
Cr - m/L	X	X	X	X	X	X	X	X	X	X
Cu - m/L	X	X	X	X	X	X	X	X	X	X
Pb - m/L	X	X	X	X	X	X	X	X	X	X
Ni - m/L	X	X	X	X	X	X	X	X	X	X
Sr - m/L	X	X	X	X	X	X	X	X	X	X
Zn - m/L	X	X	X	X	X	X	X	X	X	X
CYANIDE - m/L	X	X	X	X	X	X	X	X	X	X
SULFIDE m/L	X	X	X	X	X	X	X	X	X	X
ACETONE - m	X	X	X	X	X	X	X	X	X	X
Z-BUTANONE - m	X	X	X	X	X	X	X	X	X	X
CHLOROBENZENE - m	X	X	X	X	X	X	X	X	X	X
(1,4)-DIOXANE - m									X	X
ETHYL BENZENE - m	X	X	X	X	X	X	X	X	X	X
Remarks:										
BENZENE ALCOHOL - m	X	X	X	X	X	X	X	X	X	X
BARBITURIC ACID - m	X	X	X	X	X	X	X	X	X	X

L = LEACHATE BY EP TOXICITY M = MASS ANALYSIS

Abbreviations: G - Glass P - Plastic A - Amber T - TCLP Analysis M - Mass Analysis S - SPLP Analysis

HRP Associates, Inc.  
167 New Britain Avenue  
Plainville, CT 06062  
Phone: 860-793-6899  
Fax: 860-793-6871

HRP

CHAIN OF CUSTODY

Sheet 4 of 4

Job Number MAC 0030 PC

Project Manager RDM

Place & Address of Collection MACDERMID INC

Samplers Name (Signature)

HUNTINGDON AVE WATERBURY CT

Sample I.D.	Sample Location	Container Type	Total Volume	Preservative	Date	Time	Sample Matrix	Remarks
CC021	NMP	G	802	COOL	8/10/01	NOON	CONCRETE	CHIP SAMPLES
CC022								
CC023								
CC024								
CC025								
CC026								
CC027						7:00 PM		
CC028								
W001	TRIP	GP	70+	COOL HCL		8:00 AM	WATER	BLANK
W002	EQUIP.					3:00 PM		BLANK

Relinquished By (Signature)

Received By (Signature)

Date 8-10-01

Time 3:00 PM

Relinquished By (Signature)

Received By (Signature)

Date

Time

Name & Address of Laboratory:

EAS LABS MIDDLETOWN CT

Parameters	Sample ID										
		CC021	CC022	CC023	CC024	CC025	CC026	CC027	CC028	W001	W002
SOLVENTS - M		X	X	X	X	X	X	X	X	X	X
METHYLENE CHLORIDE - M		X	X	X	X	X	X	X	X	X	X
4-METHYL-2-PENTANONE - M										X	X
TETRACHLOROETHYLENE - M		X	X	X	X	X	X	X	X	X	X
TOLUENE - M		X	X	X	X	X	X	X	X	X	X
1,1,1-TRICHLOROETHYLENE - M		X	X	X	X	X	X	X	X	X	X
TRICHLOROFLUOROMETHANE - M		X	X	X	X	X	X	X	X	X	X
TRICHLOROETHYLENE - E - M		X	X	X	X	X	X	X	X	X	X
XYLENE - M		X	X	X	X	X	X	X	X	X	X
BIS(2-ETHYLHEXYL)PHTHALATE - M		X	X	X	X	X	X	X	X	X	X
BUTYL BENZYL PHTHALATE - M										X	X
DI-N-BUTYL PHTHALATE - M										X	X
DI-N-OCTYL PHTHALATE - M										X	X
ARSENIC - MCL		X	X	X	X	X	X	X	X	X	X

Remarks:

~~BEWARE ARSENIC~~

L = LEACHATE BY EP TOXICITY M = MASS ANALYSIS

Abbreviations: G - Glass P - Plastic A - Amber T - TCLP Analysis M - Mass Analysis S - SPL Analysis

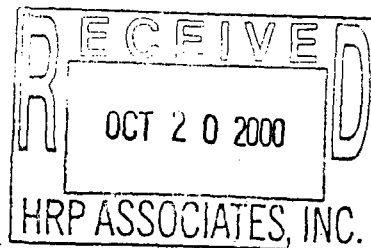
**APPENDIX K**

**October 3, 2000 Sampling Results**



October 17, 2000

MACDERMID, INC.  
245 Freight Street  
Waterbury, CT 06702



Attention: Mr. Greg Strong

EAS Project Number: 00100036  
Location Collected: MacDermid, Huntingdon Ave, Waterbury

Copies of this report and the supporting computer stored data are retained in our files in the event they are required for future reference.

Any sample submitted to our laboratory will be retained for a maximum of thirty (30) days from receipt of the report.

All analytical data, unless otherwise specified, is reported on a wet weight (as received) basis.

Our laboratory is a multi-state Certified Public Health Laboratory, offering a full range of analytical services that include:

Water and Wastewater Analysis  
Hazardous Waste Analysis (RCRA)  
Full Priority Pollutant Analysis  
Drinking Water Analysis



Gregory C. Lawrence  
Laboratory Director

encl.

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC029/NMP Room

EAS Sample Number: 00100036-01

LIMS ID Number: AB11556

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.04	0.02	mg/L	10/09/00
Nickel, Leachable	0.46	0.02	mg/L	10/09/00
Zinc, Leachable	4.7	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/06/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC030/NMP Room

EAS Sample Number: 00100036-02

LIMS ID Number: AB11557

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.053	0.02	mg/L	10/09/00
Nickel, Leachable	0.036	0.02	mg/L	10/09/00
Zinc, Leachable	0.41	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/06/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC031/NMP Room

EAS Sample Number: 00100036-03

LIMS ID Number: AB11558

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	BDL	0.02	mg/L	10/09/00
Nickel, Leachable	0.38	0.02	mg/L	10/09/00
Zinc, Leachable	2.1	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/06/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable				
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00



MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC032/NMP Room

EAS Sample Number: 00100036-04

LIMS ID Number: AB11559

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.37	0.02	mg/L	10/09/00
Nickel, Leachable	0.29	0.02	mg/L	10/09/00
Zinc, Leachable	5.2	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/06/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable				
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC033/NMP Room

EAS Sample Number: 00100036-05

LIMS ID Number: AB11560

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.37	0.02	mg/L	10/09/00
Nickel, Leachable	0.18	0.02	mg/L	10/09/00
Zinc, Leachable	2.5	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/10/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable				
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

C.

: MacDermid, Huntingdon Ave, Waterbury

cted: 10/03/00

n: CC034/NMP Room

ber: 00100036-06

AB11561

ived: 10/03/00

nber: MAC0030.RC

Units	Analysis Date		Data	Detection Limit	Units	Analysis Date
g/L	10/09/00	able	0.069	0.02	mg/L	10/09/00
g/L	10/09/00		0.40	0.02	mg/L	10/09/00
g/L	10/09/00		4.0	0.005	mg/L	10/09/00
	10/10/00	eachable	Completed			10/10/00
	10/03/00	ing Procedure	Completed			10/03/00
		chable				
g/L	10/11/00	l)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC034/NMP Room

EAS Sample Number: 00100036-06

LIMS ID Number: AB11561

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.069	0.02	mg/L	10/09/00
Nickel, Leachable	0.40	0.02	mg/L	10/09/00
Zinc, Leachable	4.0	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/10/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC035/NMP Room

EAS Sample Number: 00100036-07

LIMS ID Number: AB11562

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.15	0.02	mg/L	10/09/00
Nickel, Leachable	0.48	0.02	mg/L	10/09/00
Zinc, Leachable	4.1	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/10/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC036/NMP Room

EAS Sample Number: 00100036-08

LIMS ID Number: AB11563

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.11	0.02	mg/L	10/09/00
Nickel, Leachable	0.49	0.02	mg/L	10/09/00
Zinc, Leachable	4.6	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/10/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable				
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: CC037/NMP Room

EAS Sample Number: 00100036-09

LIMS ID Number: AB11564

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Leachable	0.13	0.02	mg/L	10/09/00
Nickel, Leachable	0.031	0.02	mg/L	10/09/00
Zinc, Leachable	0.013	0.005	mg/L	10/09/00
BNA Extraction, Leachable	Completed			10/10/00
EP Toxicity Leaching Procedure	Completed			10/03/00
Method 8270, Leachable Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: W001/Trip Blank

EAS Sample Number: 00100036-10

LIMS ID Number: AB11565

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Water	BDL	0.02	mg/L	10/09/00
Nickel, Water	BDL	0.02	mg/L	10/09/00
Zinc, Water	0.011	0.005	mg/L	10/09/00
BNA Extraction, Water	Completed			10/06/00
Method 8270, Water				
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00



MACDERMID, INC.

Location Collected: MacDermid, Huntingdon Ave, Waterbury

Date Sample Collected: 10/03/00

Sample Description: W002/Equip. Blank

EAS Sample Number: 00100036-11

LIMS ID Number: AB11566

Date Sample Received: 10/03/00

Client Project Number: MAC0030.RC

Parameter	Data	Detection Limit	Units	Analysis Date
Chromium, Water	BDL	0.02	mg/L	10/09/00
Nickel, Water	BDL	0.02	mg/L	10/09/00
Zinc, Water	0.012	0.005	mg/L	10/09/00
BNA Extraction, Water	Completed			10/06/00
Method 8270, Water				
Bis(2-ethylhexyl)phthalate	BDL	10	ug/L	10/11/00

EAS Project Number: 00100036

Location Collected: MacDermid, Huntingdon Ave, Waterbury

### **EAS Certifications:**

Connecticut Certified Laboratory Number: PH 0558

Massachusetts Certified Laboratory Number: M-CT020

Maine Certified Laboratory Number: CT 020

New Jersey Certified Laboratory Number: 46647

New York Certified Laboratory Number: 10916

Rhode Island Certified Number: 139

### **The enclosed analyses were conducted in accordance with:**

1. APHA Standard Methods for the Examination of Water and Wastewater, 18<sup>th</sup> Edition, 1992
2. Clean Water Act, List of Approved Test Procedures, 40 CFR
3. EPA Test Methods for the Evaluation of solid Waste, SW-846, 3<sup>rd</sup> Edition, January 1998

Abbreviations: G - Glass P - Plastic A - Amber T - TCLP Analysis M - Mass Analysis S - SPLP Analysis

Date: March 16, 2001  
Rev. No. 0

**APPENDIX N**

**DECEMBER 5, 2000 GEAR STREET SUMP SPILL REPORT**



STATE OF CONNECTICUT  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

79 Elm Street  
Hartford, CT 06106-5127  
<http://dep.state.ct.us>

Bureau of Waste Management  
Oil and Chemical Spill Response Division

REPORT OF PETROLEUM OR CHEMICAL PRODUCT DISCHARGE, SPILLAGE OR RELEASE

1. When did the incident occur? Date 12 / 05 / 2000 Time 3:30 PM (approximately)  
month/day/year
2. Where did the incident occur? The incident occurred at MacDermid's facility located at  
526 Huntington Avenue, Waterbury, CT.
3. How did the incident occur? (Describe the cause) During routine maintenance and inspection of a  
concrete wastewater collection sump, a hole approximately four (4) inches in diameter was  
discovered at the bottom of the sump. It is unclear what actually caused the hole to  
develop.
4. Under whose control was the chemical or petroleum product at the time of the incident?  
Name: MacDermid, Inc.  
Mailing & street address: 245 Freight Street  
Town: Waterbury State: CT Zip: 06702 Telephone: (203) 575-5703
5. Who is the owner of the property onto which the spill occurred?  
MacDermid, Inc.  
If this is a corporate property or property owned jointly, who is the represents the owner?  
Corporate property ☒ Property owned jointly ☐  
Name: \_\_\_\_\_  
Mailing & street address: \_\_\_\_\_  
Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Telephone: \_\_\_\_\_
6. When was the incident verbally reported to the Department of Environmental Protection?  
Date 12 / 06 / 2000 Time 2:00 PM  
month/day/year



**STATE OF CONNECTICUT  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION**

79 Elm Street  
Hartford, CT 06106-5127  
<http://dep.state.ct.us>

7. Who reported the incident and who were they representing?

Name: Gregory J. Strong on behalf of MacDermid, Inc.

Mailing & street address: 245 Freight Street

Town: Waterbury State: CT Zip: 06702 Telephone: (203) 575-5703

3. What were the chemicals or petroleum products released, spilled or discharged? Give an exact description of each of the materials involved in the incident, including the chemical names, percent concentrations, trade names, etc.

If the chemicals are Extremely Hazardous substances or CERCLA hazardous substances they must be identified as such and include the reportable quantity (RQ). Please attach a Material Safety Data Sheet (MSDS) for each chemical involved.

What were the quantities of chemicals that were released, spilled or discharged to each environmental medium (air, surface water, soil, ground water)? [NOTE: Connecticut General Statutes requires the reporting of any amount of any substance or material released to the environment].

An unknown volume of process industrial wastewater was released.

9. Did any of the chemical(s) travel beyond the property line? [NOTE: Materials that enter the ground water are considered to have gone beyond the property line.]

While unknown, based upon conditions at the site, MacDermid believes

that none of the material associated with this incident flowed beyond our  
property line.



**STATE OF CONNECTICUT  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION**

79 Elm Street

Hartford, CT 06106-5127

<http://dep.state.ct.us>

10. What actions were taken to respond to and contain the release, spill or discharge?

The piping which directed the process wastewater into this sump has been cut and re-routed directly into a larger collection sump. This larger collection sump has been used as the intermediary treatment step after the wastewater collection sump at issue. The larger sump was visually inspected by MacDermid personnel and no defects or irregularities were observed.

11. What actions are being taken to prevent reoccurrence of an incident of this type? (Attach additional sheets if necessary)

As noted above, MacDermid has terminated the use of this wastewater collection sump.

In addition, MacDermid will inspect other wastewater collection sumps in this facility for damage or defects.

12. Were there any injuries as a result of the incident? If so, list the names of exposed individuals, their addresses, phone numbers and describe their injuries. (Attach additional sheets if necessary)

Name: N/A

Mailing & street address:

Town: State: Zip: Telephone:

13. What is the appropriate advice regarding medical attention necessary for exposed individuals?



**STATE OF CONNECTICUT  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION**

79 Elm Street  
Hartford, CT 06106-5127  
<http://dep.state.ct.us>


14. Are there any known or anticipated health risks, acute or chronic, associated with the release of this chemical or medical advice that should be communicated?

MacDermid is unaware of any known or anticipated health risks, acute or chronic,  
associated with this release.

15. Was the incident completely cleaned up by the time this report was submitted? If not, what are the anticipated remedial actions and their duration? The sump was drained of any wastewater.

MacDermid plans to sample and analyze soil adjacent to the sump.

16. CERTIFICATION: I hereby affirm that the foregoing statement is true to the best of my knowledge.

	Manager of Regulatory Affairs	12/06/00
Signature	Title	Date
Gregory J. Strong		(203) 575-5703
Print Name		Telephone
245 Freight Street	Waterbury	Connecticut 06702
Street Address/P.O.Box	City/Town	State & Zip

This form may be reproduced or computerized as long as it contains all of the information requested and is on an 8½ x 11 white paper, black type format. For serious incidents the questions may be answered in narrative format which must include the preparer's affidavit.

**MAIL TO:**

State of Connecticut  
Department of Environmental Protection  
Bureau of Waste Management  
Oil and Chemical Spill Response Division  
79 Elm Street  
Hartford, CT 06106-5127

Telephone: Routine Calls (860)424-3024  
Emergency 24 hours (860)424-3338